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Sandra Prince-Embury
Donald H. Saklofske
Editors

Resilience Interventions for Youth in Diverse Populations

Foreword by
Sam Goldstein

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Resilience Interventions for Youth in Diverse Populations

Springer

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Foreword

Life can only be understood backwards, but it must be lived forwards.

Soren Kierkegaard

What are the risk and protective forces that buffer each of us, pushing us along on a unique journey through childhood into our adult years? Why is it that some of us thrive, often in the face of adversity, while others are overwhelmed? In my work with Bob Brooks (Brooks & Goldstein, 2001, 2004, 2007; Goldstein & Brooks, 2005, 2007, 2012), we have written that "it would not be an oversimplification to conclude that realization of our parental goals requires that our children possess the inner strength to deal competently and successfully day after day with the challenges and demands they encounter. We call this capacity to cope and feel competent resilience" (p. 1, 2001). An increasing body of scientific evidence suggests that children facing great adversity in their lives can and do endure. Resilience explains why some children overcome seemingly overwhelming obstacles while others become victims of their early experiences and environments.

Though we now appreciate the role of families, communities, and schools in fostering a resilient mindset we must continue to create opportunities in all corners of our society to enhance and strengthen resilience in our children. No child is immune to the pressures of our culture and society. In our fast-paced, stress-filled world, it appears that the number of children facing adversity, the number of adversities they face, and the number of challenges to good coping continue to increase. Even children fortunate to not face significant adversity or trauma or to be burdened by intense stress or anxiety experience the pressures around them and the expectations placed upon them. The need to develop a resilient mindset is even more critical for youth at risk.

A number of longitudinal studies over the past decades have sought to develop an understanding of the complex qualities within individuals, families, and the environment that interact and contribute to the processes of risk and protection. One goal has been to develop an applied model of this knowledge in clinical

practice (Donnellan, Coner, McAdams, & Neppl, 2009; Garmezy, Masten, & Tellegren, 1984; Luthar, 1991; Rutter & Quinton, 1994; Werner & Smith, 1982, 1992, 2001). These and other studies identified resources across children's lives that predict successful adjustment despite exposure to adversity. These longitudinal studies have also begun the process of clarifying models of how such protective factors promote good adaptation (Wyman, Sandler, Wolchik, & Nelson, 2000).

Whether these processes can be applied to all youth regardless of the level of adversity they experience remains to be thoroughly demonstrated (Goldstein & Brooks, 2012; Ungar, 2008). Ann Masten suggested that positive outcome for many children adopted from high risk areas such as Romania confirms that resilient processes can be applied in a clinical setting (Masten, 2001). Many of these children made significant developmental growth catching up cognitively and physically (Rutter and the English and Romania Adoptee Study Team, 1998).

The process of creating an applied and practice-focused psychology of resilience begins with an understanding of the relevant variables necessary to create a working model and appreciation of the biopsychosocial nature of human development. As Sroufe (1997) and Sameroff (1995) state, such a process must take into account a broad range of biological, psychological, and social factors. This process must begin with a foundation of an appreciation of wellness (Cowen, 1991). A wellness framework assumes the development of healthy personal environmental systems leading to the promotion of well-being and the reduction of dysfunction. A wellness framework emphasizes the interaction of the children with their immediate and extended environment. Meta-analytic studies of the effectiveness of preventive intervention have generated increasing evidence that in clinical as well as community-based samples, emotional, behavioral, and psychiatric problems can be diminished and/or prevented. Such programs emphasize a science of prevention (Coie et al., 1993).

The concept of resilience is straightforward if one accepts the possibility of developing an understanding of the means by which children develop well emotionally, behaviorally, academically, and interpersonally in the face of risk and adversity. Such a model offers valuable insight into the qualities that likely insulate and protect children experiencing a broad range of challenges, including medical problems (Brown & Harris, 1989), family risks (Hammen, 1997), psychological problems (Hauser, Allen, & Golden, 2006; Sandler, Tein, & West, 1994), and parental loss (Lutzke, Ayers, Sandler, & Barr, 1999) to just name a few areas of challenge. Competent, appropriate parenting combined with parental availability and support serves as powerful protective factor extending a broad, positive impact in reducing the probability that children will develop mental health problems (Dubow, Edwards, & Ippolito, 1997; Masten, 1999). It appears to be the case that youth functioning well in adulthood, regardless of whether they faced adversity or not in childhood, may share many of the same characteristics of stress hardiness, communication skills, problem solving, self-discipline, and connections to others. Though the earliest studies of resilience suggested the role of exceptional characteristics within the child that led to invulnerability (Garmezy & Nuechterlin, 1972), it appears more likely that resilience reflects ordinary developmental processes capable of

explaining good adaptation (Masten, 2001). It is likely that there is a complex, multidimensional interaction between risk factors, biological functioning, environmental and familial issues, and protective factors that combine in a unique idiosyncratic way in each child in the course of life transition (Kim-Cohen & Gold, 2009).

Masten and Coatsworth (1988) suggested that resilience within a clinical realm requires two major judgments. The first addresses threats. Children are not considered resilient unless they have faced and overcome adversity considered to impair normal development. Second, a consensus needs to be determined as to how to assess good or adequate outcome in the face of adversity. It continues to be the case that most clinical practitioners define resilience on the basis of a child meeting the major requirements of childhood successfully, such as attending school, making friends, and functioning well within his or her families. Yet, one must also consider that a child facing multiple developmental adversities, who does not develop significant psychopathology but who may not demonstrate academic or social achievement, may be resilient as well (Conrad & Hammen, 1993).

An applied and practice-focused psychology of resilience must provide an appreciation of protective factors within the child, family, and community. Children's temperament appears to play a significant role in their capacity to handle adversity. Interactions with parents that encourage trust, autonomy, initiative, and connections to others serve as powerful protective factors. Living in a safe community and attending supportive school serve an important role as well. Thus, a psychology of resilience must incorporate an understanding of the processes that drive human development. As Lorion (2000) points out, human growth is in part driven by a need to cope, adapt, and develop homeostasis. The complexity of this process is exemplified in the studies of youth capable of overcoming a variety of unfavorable environmental phenomena while others facing similar risks do not.

In a 1988 review of successful prevention programs, Schorr suggested that effective programs for at-risk youth were centered upon the establishment of relationships with caring, respectful, and trust building adults. Ultimately, connections to people, interests, and to life itself may represent the key components in resilience processes (Polakow, 1993). Development, as Michael Rutter contends, is a question of linkages that happen within you as a person and also in the environment in which you live (Pines, 1984). Cowen (1991) argues that mental health as a discipline must expand beyond symptom-driven treatment interventions if the tide of increasing stress and mental health problems in children is to be averted. There must be an increasing focus on ways of developing an understanding of those factors within individuals, in the immediate environment and in the extended environment that insulate and prevent emotional and behavioral disorders. Understanding these phenomena is as important as developing "an understanding of the mechanisms and processes defining the etiological path by which disorders evolve and a theory of the solution, conceptual and empirically supported or supportable intervention that alters those mechanisms and processes in ways which normalize the underlying developmental trajectory" (Cowen, 1994, p. 172). Yet, 20 years later we continue to struggle as a field. Most mental health professionals continue to be trained to collect assessment data focused on symptoms of psychological "difficulty" as described in

the DSM-V (APA, 2013) or other diagnostic classifications. Such symptoms may be equated with poor adaptation, inadequate adjustment, distress and life problems, or even more significant disturbance. Emphasis on the negative equates with the perception that symptom relief will ultimately lead to positive, long-term outcome. Even the recent publication of DSM-V, the accepted nosology of the mental health system, is built on a model that reflects assessment of symptoms and severity packaged into what continues to be a weakly factor-analyzed framework. Still unavailable is a nosology and system to measure adaptation, stress hardiness, and the qualities necessary to deal successfully with and overcome adversity. Yet in the professional practice of psychology including clinical, school, and counseling, we increasingly recognize that it is these phenomena rather than relief of symptoms or the absence of certain risk factors that best predict adaptation, stress hardiness, and positive adjustment into adulthood.

This volume, *Resilience Interventions for Youth in Diverse Populations*, continues the important work of Sandra Prince-Embury and Don Saklofske in their efforts to help create a psychology of resilience. This volume serves as a companion to their 2013 work, *Resiliency in Children*, *Adolescents*, *and Adults*: *Translating Research into Practice* (Prince-Embury & Saklofske, 2013), which focuses on the definition and assessment of resilience. Prince-Embury is also the author of the *Resiliency Scales for Children and Adolescents* (*RSCA*) (Prince-Embury, 2006, 2007, 2013; Prince-Embury & Courville, 2008a, 2008b) which presents a three-factor working model for the assessment and application of resilience theory. In their current volume Prince-Embury and Saklofske advocate further for the systematic translation of resilience theory and research for practice by identifying programs that are already attempting to systematically apply principles based on solid theory and related findings.

As the Coeditor of one of the first clinical volumes addressing resilience in children, now in its second edition (Goldstein & Brooks, 2012), it is exciting to witness the ground swell of interest in applying 60 years of psychological research to develop, create, evaluate, and implement prevention and treatment programs focused on enhancing children's abilities to cope with and overcome adversity. The breadth and scope of the programs discussed in this volume authored by dedicated professionals, from multiple continents throughout the world, speak to the now universal acceptance of what up until recently was considered only an academic subject. Mahatma Gandhi wrote, "The future depends on what you do today." Today we are doing extraordinary and important work for the welfare and future of our children.

Salt Lake City, UT Sam Goldstein

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Part I
Introduction and General Issues

Chapter 1
Building a Science of Resilience Intervention for Youth

Sandra Prince-Embury and Donald H. Saklofske

This volume entitled *Resilience Interventions for Youth in Diverse Populations* will present empirically supported programs and interventions designed to enhance resilience and describe how these methods have been approached and applied across children, context, and unique circumstances. This volume follows up on our previously published volume—*Resiliency in Children, Adolescents, and Adults: Translating Research into Practice* (Prince-Embury and Saklofske, 2013). That volume addressed the need in the study of resilience for clarification and translation of these constructs for practical application. Although discussions of resilience and resiliency are not new (Prince-Embury, 2013), the systematic study of interventions to enhance resiliency is still in its formative stage. The aim of this volume is to begin such a systematic study as well as identify, clarify, and present current programs for children to a wider audience. We have focused in this volume on resilience interventions for youth based on developmental literature suggesting that early development presents the best opportunity for preventive intervention in that the effects of both protective and risk factors are developmentally cumulative.

As editors, we have invited the authors of chapters in this volume to define the population of youth they are addressing and what challenges this population may face. They were also asked to describe those components of resiliency that form the core of their described models and programs and how the interventions used relate to these components. Finally authors were asked to describe the changes targeted and observed and how these changes were or might be demonstrated.

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Resilience and Its Enhancement

Resilience and resiliency are of particular interest at this time in our human history for several major reasons. The world more than ever is in crisis on various but interrelated fronts: politically, socially, economically, and environmentally. The lack of stability and civil war in much of the Middle East and Africa threatens the wider world today because of both the exporting of terrorism and the capacity to "engage" in war from any corner of the globe. The movement of people from country to country has brought with it both the richness of the earth's cultures, but also old and new hatreds. Literally millions of peoples' lives are threatened daily by conflict, whether driven by religion or politics and the capacity, even the willingness, to inflict such physical and psychological human suffering is almost incomprehensible. Added to this is the economic malaise that continues to plague third world countries due to poverty, political corruption, and nature itself. Of course the economic issues facing all countries including both European and the USA have undermined the security of jobs and income and created financial uncertainty that reminds one of the tragedies of the great depression. Natural disasters are recorded on a frequent basis ranging from floods, drought, earthquakes, hurricanes, and massive fires all of which in turn threaten lives directly. Of course the pollution of oceans and land and the changing climatic conditions, no matter their cause, assault the very biological survival of human kind through the production of food and clean water. While not all children are directly aware of these global events, the potential threats trickle down through communities and families in the form of everyday stressors and tension in family relationships.

While these tragic events may be occurring "elsewhere," they are readily accessible to us because of greater access to information through all forms of media including internet. These circumstances as well as hardships of everyday life present challenges to many children and families regardless of their individual circumstances. It is within these occurrences and events and our awareness that the concept of resilience has gained prominence. It is reasonable that interest in resilience or the ability to thrive in the face of adversity would increase as awareness of challenges increases and as we recall the capacity of humans to survive and sometimes thrive in the face of adversity. As editors we have chosen to include authors and programs developed internationally as this more accurately represents the international interest in this topic and need for substantial and effective practical applications of the construct.

The need for the current volume is consistent with the need for social scientists to move beyond defining and providing examples of resilience toward understanding, and applying the principles of resilience enhancement. While history is replete with examples of the human capacity to confront, survive and even thrive in the face of life's many adversities, we need to consolidate these observations along with all else that we know about human behavior in order to promote resilience for children and their families.

The focus on definition in our previous volume (Prince-Embury and Saklofske, 2013) made obvious sense in a field that had been struggling for clarity of definition and empirically based assessment. However, practical application of the construct of resilience to prepare children and youth for life challenges requires more

scientific demonstration of these principles in practice. In a mental health field with still a strong focus on the medical model, reduction of symptoms has been the benchmark for assessing the efficacy of treatment. Application of resilience requires a preventive model, presumably in the absence of psychological symptoms or before they might occur and in the same vein, a growth-based model. For this reason, constructs of resilience as strength based are needed as well as tools for gauging changes in these strengths.

The past few years have been witness to a plethora of self-help books and interventions that have not always been systematically linked to sound core developmental constructs. As well, these interventions are often not empirically tested for either efficacy or effectiveness. Some interventions that are found to be effective in reducing symptoms claim to increase resiliency while this implied mediating process is not documented or substantiated. Thus there is a disconnect between the complex theory and body of research on resiliency and the abundant self-help products employing this term. The current volume is a beginning to addressing this need by requesting that authors of the following chapters describe their programs in as much detail and specificity as possible while providing evidence for their effectiveness.

This volume is divided into three parts, the first addresses general principles and the next two describe different settings that, in turn, may require different considerations in the design, administration and assessment of the intervention. Part I includes four chapters each presenting a broad-based theoretical framework for understanding resiliency upon which interventions might be based. Part II presents interventions for youth in community and school contexts who have not been diagnosed with clinical disorders, but may be described as at-risk. The interventions presented in these chapters are based on a preventive model that resilience interventions may be presented to nonclinical populations of youth to enhance their resilience to future adversity. Part III presents interventions designed for youth diagnosed with specific disorders. These interventions take into account the needs of youth specific to their diagnostic circumstances.

Introduction and General Issues

Following this introductory chapter (Chap. 1) are three more chapters that address foundational issues related to what we know about resiliency in order to move this knowledge to practice and applications. In Chap. 2 titled "Review of Resilience Conceptual and Assessment Issues," Prince-Embury briefly reviews definitions of resilience and the evolution of theory and research relating to this construct. In Chap. 3, "A Three Factor Model of Personal Resiliency and Related Assessment" she describes a three-factor model of personal resiliency (Prince-Embury, 2007, Prince-Embury and Courville, 2008a, 2008b, Prince-Embury and Steer, 2010) that is based on three-core developmental systems commonly associated with adaptive functioning. In addition, this chapter will summarize and integrate the developmental theory underlying the three-factor model, present theory, and research evidence supporting the model. Interventions associated with each global aspect of personal

resiliency are presented. This model was developed by Prince-Embury (2007) as a way of simplifying resilience theory for practical application, in conjunction with the development of the Resiliency Scales for Children and Adolescents (RSCA) as a user friendly tool for tapping the three-factor model. The RSCA was created and normed in the USA but has been applied internationally.

Chapter 4 "Creating Resilient Mindsets in Children and Adults: A Strength-Based Approach for Clinical and Non-Clinical Populations" by Brooks and Brooks takes as a central focus the concept of a "resilient mindset," applying this concept to both clinical and nonclinical populations in the US schools and clinical settings. In terms of both groups of children, they describe techniques that parents, teachers, and therapists can use in a variety of settings to reinforce a resilient mindset with its accompanying behaviors in children of all ages. They also describe techniques that therapists can use with adult patients or what adults in nonclinical populations can do to strengthen a resilient mindset and lifestyle. The chapter includes case examples capturing a prevention and intervention approach.

Interventions for Schools and Other Nonclinical Populations

Part II presents interventions to enhance resiliency in nonclinical populations. These interventions describe programs that may be applied universally or to at-risk groups of children in settings such as schools, after school activity programs or camps. The different parameters described in each chapter include the selection of children to receive the intervention, cooperation of parents and associated agencies, implementation and assessment of the intervention.

Chapter 5, "Using the Friends Program to promote resilience in cross-cultural populations" written by Paula Barret, Marita Cooper, Julia Gallegos and based in Australia discusses protective and risk factors related to emotional well-being in youths that are needed to provide a framework for the development of resilience-building programs. A brief review of resilience enhancement in youths is provided as well as introduction of the "FRIENDS" protocol, a social-emotional skills program. The FRIENDS program is a robustly supported program and is the only program endorsed by the World Health Organization for the prevention and treatment of anxiety and depression in children and youth. Description of the FRIENDS programs, research evaluating program outcomes, and adaptations of the programs for use with diverse youth populations are also included. Lastly, recent innovations in conceptualization, research, assessment, and treatment of resilience as well as future directions for research are discussed. Although designed for the prevention of anxiety and depression, this chapter was included in the first part of our volume because of its more general applicability.

Chapter 6, "Girls Leading Outward (GLO); a school-based leadership program to Promote Resilience for at-risk middle school girls," by Stepney, White, Far, and Elias describe GLO as a positive youth development program for at-risk middle school girls that not only seeks to prevent future problems, but also aims to foster

resilience. GLO focuses predominately on urban, African-American and Latina students from low-income communities in the USA, with a goal of reaching them prior to their transition to high school. It provides a safe space for girls to express their opinions, voice their concerns, and develop positive relationships with their peers. Through the program, girls are equipped with the skills necessary to effectively problem-solve, overcome obstacles, and manage conflicts with others. Key skills learned include emotion regulation, effective communication and assertiveness, active listening, goal setting, and problem solving.

Chapter 7 "Promoting Resilience through Executive Function Training for Homeless and Highly Mobile Preschoolers" is presented by Casey, Finsaas, Carlson, Zelazo, Murphy, Durkin, Lister, and Masten This chapter provides an overview of their research program designed to understand and promote resilience in an extremely disadvantaged group of children experiencing homelessness with their families in the USA. The authors provide an overview on the risks and resilience of homeless children and the evolution of a translational research program focused on executive function skills as the change target. A developing intervention designed to boost executive function in homeless and other highly mobile children is described, including the theory of change, components of the intervention and the lessons learned from the iterative strategy that is shaping the final form of a preschool intervention for a future efficacy trial. Challenges and ethical issues are described as well as preliminary findings. The importance of collaboration among resilience scientists, preschool teachers from a university laboratory school and community-based programs, shelter staff, and parents in the design and refinement of this intervention will be emphasized.

Chapter 8 "Your Journey Together: Promoting Resilience in the Foster Care System" by Smith, LeBuffe, Alleyne, Mackrain, Sperry, and Likins begins by reminding that there are over 400,000 children in the foster care system in the USA. According to the authors, those children who enter foster care present with three to seven times as many physical, mental and developmental problems as other children. In addition, the separation from their family of origin and disruptions in foster care placements create additional risk factors. Not only the children but the biological and foster parents often have lives characterized by multiple risk factors. This chapter describes a program designed to offset the negative effects of these risk factors, to promote the resilience of both the children and the parents, and to encourage and work toward reunification and permanency. The "Your Journey Together" program is designed for implementation to groups or individuals in office or home settings and uses evidence-based assessments and research-informed, reliance-enhancing strategies. This chapter describes the model, presents a case illustration and preliminary outcome data, and discusses implementation challenges.

Chapter 9, "Building Resilience in Children the Sesame Street Way," written by Oades-Sese, Cohen, Allen, and Lewis, presents a description of an 8-week intervention using a multimedia toolkit to foster resilience in children (ages 3–8). The multimedia toolkit is aimed at increasing children's emotional literacy, attachment, emotional regulation, and problem-solving skills through Sesame Street videos, hands-on activities, web games, and books.

Chapter 10 "Enhancing Classroom Resilience with ClassMaps Consultation" by Song, Sikorski, Doll, and Sikorski turns attention to school-based initiatives in promoting resiliency in children. ClassMaps is based on over 20 years of research, in which classroom environmental factors are identified and enhanced in a collaborative manner with the teachers and students. This chapter discusses the ClassMaps model, research supporting its use, and presents a case study of a third-grade Spanish Immersion classroom in a US public suburban elementary school.

Chapter 11"The Resilience Doughnut Model an Intervention Program aimed at Building Resilience in Adolescence" was written by Lynn Worsley and showcases a program that has been successfully applied with at-risk children in Australia. Worsley defines resilience as a process of continual development of personal competence while negotiating available resources in the face of adversity. The Resilience Doughnut intervention is premised on the author's model that resilience is developed in seven contexts of existing relationships around the child. The aim of Resilience Doughnut intervention is to determine and link the most positive contexts together in a meaningful way for each child. The research findings presented in this chapter support the view that there are multiple pathways to resilience which are dependent on the interaction of positive intentional interactions around the developing youth.

Chapter 12, "Community and Residential Programs: Spurwink Mental Health System in Maine" authored by Butler and Francis, examines resiliency profiles of school-age youth who attend one of the three after-school/summer community-based programs within a large multi-site mental health system in Maine and compares the resilience of these youths with those in residential treatment. The programs offer a variety of activities to promote skill development, healthy social interactions, budding hobbies and talents, community involvement, and a place to belong. One of the programs focuses on nonelectronic gaming activities with elaborate historic events reenacted in a game-like fashion. Measures assessing resiliency, self-esteem, risky behaviors, hope, and assets administered at the beginning and end of the program are presented in support of this program.

In Chap. 13, "Resilience in Youth who have been Exposure to Violence," Nancy Ghali discusses youth who have been victims of crime or are exposed to community violence and their risk for developing conduct problems as related to personal resiliency and parental relatedness. Specifically this chapter explores the relationship between resiliency factors such as sense of mastery, relatedness, emotional reactivity, relatedness to parents, friends, and teachers, and conduct problems in youth who have been exposed to violence in a general population of high school students in the USA. Ghali presents findings suggesting that those who have high exposure to violence and a high level of emotional reactivity and a low connection to parents and teachers report more aggressive behavior and rule breaking behavior. Intervention implications are discussed.

Chapter 14, "Fostering Resilience in Greek Schools in Times of Economic Crisis," was written by Hatzigristou, Adamopoulou, and Lampropoulou from the University of Athens, Greece. The authors discuss how stressful events and

unsettling times, including economic crisis, have the potential to negatively impact the lives of children and the overall school community. Responding to a recent Greek economic crisis situation, the Center for Research and Practice in School Psychology of the University of Athens in cooperation with the Society for School and Family Consultation and Research developed a multi-level school-based crisis prevention and intervention program that promotes resilience and well-being of teachers and students. This chapter discusses the program and its implementation.

Interventions for Clinical Populations

In some instances, interventions to enhance resiliency may be targeted to a specific clinical population with specific clinical issues. Interventions to enhance resiliency in clinical samples may be designed to either address issues presented by the specific disorder or related impairments in functioning. This section describes resiliency programs for youth presenting with a variety of disabilities including intellectual disability, attention-deficit/hyperactivity disorder (ADHD), autism spectrum disorder (ASD), chronic illness, and transgender adjustment disorder. The programs described in this section of the book have been implemented in the USA, Canada, and Australia.

Chapter 15, "Developing Social Competence through a Resilience Mode" written by Alvord, Rich, and Berghorst, not only discusses interventions with a population of primarily ADHD and anxiety-disordered children but also includes children with comorbid conditions and learning disabilities in the USA. The authors discuss the need for a comprehensive intervention model with includes resilience-building and social-competence skills as well as the importance of treating these issues in the clinical setting concurrent with other intervention strategies A detailed discussion of RBP, including generalizing the skills to home and school, is presented in this chapter.

Chapter 16, "Promoting Resilience in Children with Intellectual Disability" by Gilmore, Campbell, Shochet, and Roberts, describes the characteristics associated with intellectual disability that make these children more vulnerable to a range of adverse developmental outcomes. Research is reviewed about resilience with a specific focus on children who are developing atypically, including those with intellectual disability. The authors then describe the adaptation and implementation of an established resilience-building intervention, "Aussie Optimism" in a randomized control trial. The aim of the intervention is to promote resilience in the children at the time of transitioning to high school in Australia.

Chapter 17, "Resilience Perspectives for Autism Spectrum Disorder" is authored by McCrimmon and Montgomery, two Canadian researchers and School Psychologists. These authors offer the definition of resilience as a dynamic process encompassing good or positive outcome in an individual despite experiences of serious or significant adversity or trauma as suggested by Luthar, Cicchetti, and Becker (2000). Resilience theory has implications for children with disabilities,

such as ASD who present with uneven profiles of strengths and weakness. In this chapter the authors discuss key concepts and research relevant to resilience (protective and risk factors) in ASD. Research- and theory-supported suggestions for individual assessment and intervention aimed at reducing risk and increasing protective factors (buffers) are presented. Examples of resilience-focused intervention programs for children (Self-Regulation Program for Awareness and Resilience in Kids) are provided. In addition, preliminary results of pilot studies of innovative programming incorporating resilience theory will be described.

Chapter 18, "Resilience in ADHD: School-based Intervention to Promote Social-Emotional Well-being," by Climie and Deen focuses on students with exceptional learning needs. Children with ADHD may be particularly vulnerable and require additional supports to be successful. In school, children with ADHD/LD often demonstrate behavioral or social-emotional difficulties, such as low self-confidence, anxiety, or social isolation. The implementation of a low-cost, school-wide intervention program that promotes social-emotional development can be effective in enhancing the resilience of students with ADHD. Previous research has found that morning exercise that allows the heart rate to be at an elevated level for an extended period of time primes the brain for learning throughout the course of the day (Ratey, 2008). This exercise may be particularly beneficial for children with ADHD/LD because it allows them to move their bodies and engage their brain for learning. The SPARK for Learning program, a 20-min daily physical exercise program that allows students to engage in physical activity during the first period of each school day, is described.

Chapter 19 "Resiliency in Pediatric Chronic Illness: Assisting Youth at School and Home" is contributed by Perfect and Frye and is intended to demonstrate how resiliency plays a role in youth's adjustment and management of chronic medical conditions in the USA. The authors provide support for employing a resiliency perspective in aiding youth with chronic illness for more positive outcomes, such as better disease control, healthier interpersonal relationships, and greater self-confidence in their own abilities. Further, the authors address school difficulties faced by youth with chronic illness, highlighting strategies that may work to promote better school functioning. Case examples and data from a study focused on integrating medical, mental health, and school psychological services for adolescents with diabetes illustrate the connections between resiliency and health issues among youth.

Chapter 20 "Resilience Building: A Social Ecological Approach to Intervention with a Trans-sexual Youth" authored by Allan and Ungar presents a strengths-based Social Ecological Approach (S.E.A.) to counseling a transgendered youth by viewing formal and informal supports as potential sources of resilience and positive development. Specifically, S.E.A. focuses on enhancing children's sense of personal self-control, agency and power, experience of social justice and fairness, belonging and purpose, spirituality, and cultural rootedness. Interventions reflect a therapeutic contract to achieve culturally meaningful goals and ensure clients successfully transition their success in treatment back into their "real-life" social ecologies.

Summary

In summary, this volume and the chapters presented in the volume bring together a body of applied translational work to enhance resilience in children and adolescents. The authors are from across the globe and represent a diversity of theoretical backgrounds while all agreeing on the importance of translating resilience theory into applied intervention for our youth. The authors present similar definitions of resilience based in early developmental theory and research on resilience "the ability to bounce back in the face of adversity" while they focus on slightly different aspects of that definition (resilient mindset, school engagement, social skills, ability to discharge excess energy through access to structured activity, etc.). However, the location of the intervention varies from the clinician's office, workshops for parents and caregivers, schools, classrooms, playgrounds, and after school programs. Some authors have focused on resilience within a multileveled context while others have directed attention to one or two levels of this context such as the individual child or the family. Some authors have focused on implementation of their programs and interventions with details of various obstacles and successes in the process. A few chapters intrigue us with transformations that occurred in the course of implementing the intervention. It appears that implementing resilience-enhancing interventions often had unforeseen consequences of enhancing resilience in the larger system and perhaps on the originators of the interventions as well.

The programs and interventions presented in this volume vary also in the intended target of the interventions from the ordinary child "who's parent did not believe needed more resiliency" through the ordinary school classroom, to children at risk due to reported maltreatment within the family, children in foster care placement, children distressed by nationwide socio-economic crisis, or children specifically diagnosed with a clinical disorder such as LD, ADHD, or anxiety disorder. Aspects of resilience applied preventively appear similar across target group although interventions targeting specific symptoms of disorders undoubtedly vary accordingly.

The authors were also asked to address whether or not their interventions "worked" by seeking and providing empirical evidence of significant effects. Some of the researchers were able to approach this question in a systematic, scientific manner, while some have only impressions, anecdotes and preliminary results at this time because their programs are so new. In many cases the verdict is still out but preliminary findings are positive. Perhaps, along with the development of resilience enhancement strategies, we need to be developing a range of outcome measures to assess both short-term and long-term outcomes of interventions at different levels of analysis.

In conclusion we suggest that this volume, the programs described and the science of applied resilience enhancement is a work in progress. We thank and salute all of the authors who have written about their work from the perspective of the current research literature and their own "clinical" experience. We invite the readers to examine, adopt, adapt and evaluate the programs and approaches described here as they apply to the children with whom they work and the settings in which they live.

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Chapter 2
Review of Resilience Conceptual and Assessment Issues

Sandra Prince-Embury

Consideration of any resilience-enhancing intervention must begin with a working definition of "resilience," for a specific population, in order to identify what needs to be enhanced, the rationale for the intervention and how to assess the effectiveness of the intervention. This chapter will briefly discuss various definitions of resilience and introduce measurement issues associated with the assessment of changes in resilience. Over the past 50+ years, definitions of resiliency have been numerous and research has operated at different levels of analysis, each with its own language and caveats. This complexity has made standardized use and application of the construct more difficult. According to a critical review by Wald, Taylor, Asmundson, Jang, & Stapleton (2006), there are several existing definitions of resilience that share in common a number of features all relating to human strengths, some type of disruption and growth, adaptive coping, and positive outcomes following exposure to adversity (e.g., Bonanno, 2004; Connor & Davidson, 2003; Friborg, Hjemdal, Rosenvinge, & Martinussen, 2003; Masten et al., 1999; Richardson, 2002). There are also a number of distinctions made in attempts to define this construct. For example, some investigators assume that resilience is located "within the person" (e.g., Block & Block, 1980; Davidson et al., 2005). Other investigators (e.g., Friborg et al., 2003; Luthar, Cicchetti, & Becker, 2000; Masten, 2001) propose that there are multiple sources and pathways to resiliency including social context (e.g., family, external support systems). Luthar et al. (2000) have provided clarification by distinguishing between resilience as a dynamic developmental process or phenomenon that involves the interaction of personal attributes with environmental circumstances and resiliency (Block & Block, 1980) as a personality characteristic of the individual.

However, there has been considerable divergence in the literature with regard to the definition, criteria or standards for resiliency; whether it is a trait, process, or an outcome variable; whether it is enduring or situation-specific; whether survival

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in the face of adversity is required and the nature of the adversity required for resiliency to be demonstrated (e.g., what is a sufficient exposure risk factor?). The following are just a few examples of definitions of resilience.

> Resilience is a dynamic process wherein individuals display positive adaptation despite experiences of significant adversity or trauma. This term does not represent a personality trait or an attribute of the individual … Rather, it is a two-dimensional construct that implies exposure to adversity and the manifestation of positive adjustment outcomes. (Luthar, Cicchetti, & Becker, 2000, p. 858)

> Resilience refers to a class of phenomena characterized by good outcomes in spite of serious threats to adaptation or development. (Masten, 2001, p. 228)

> Resilience embodies the personal qualities that enable one to thrive in the face of adversity. … Resilience is a multidimensional characteristic that varies with context, time, age, gender, and cultural origin, as well as within an individual subjected to different life circumstances. (Connor & Davidson, 2003, p. 76).

> Resilience may be briefly defined as the capacity to recover or bounce back, as is inherent in its etymological origins, wherein 'resilience' derives from the Latin words salire (to leap or jump), and resilire (to spring back). (Davidson et al., 2005, p. 43)

> Psychological resilience has been characterized by the ability to bounce back from negative emotional experiences and by flexible adaptation to the changing demands of stressful experiences (Tugade & Fredrickson, 2004, p. 320).

Resilience in the face of adversity has been studied extensively by developmental psychopathologists for the past 50 years. Consistent with the definitions above this body of work has generally defined resilience as the ability to weather adversity or to bounce back from negative experience. Much of resilience research has examined the interaction of protective factors and risk in high-risk populations. As developmental research, most of this work focused on children, sometimes in longitudinal studies of factors in the lives of youth that predicted positive outcomes in adulthood (Werner & Smith, 1982, 1992, 2001).

The earliest focus of this developmental work was the identification of factors that were present in the lives of those who thrived in the face of adversity as compared to those who did not (Garmezy, Masten, & Tellegen, 1984; Luthar, 1991, 2003; Masten, 2001; Rutter, Harrington, Quinton, & Pickles, 1994; Werner & Smith, 1982, 1992, 2001). Protective factors identified in previous research include personal qualities of the child that may have allowed them to cope with various types of adversity. The personal qualities identified include intellectual ability (Baldwin et al., 1993; Brooks, 1994; Jacelon, 1997; Luthar & Zigler, 1991, 1992; Masten & Coatsworth, 1998; Rutter, 1987; Wolff, 1995; Wright & Masten, 1997), easy temperament (Jacelon, 1997; Luthar & Zigler, 1991; Rende & Plomin, 1993; Werner & Smith, 1982; Wright & Masten, 1997; Wyman, Cowen, Work, & Parker, 1991), autonomy (Jacelon, 1997; Werner & Smith, 1982), self-reliance (Polk, 1997), sociability (Brooks, 1994; Luthar & Zigler, 1991), effective coping strategies (Brooks, 1994; Luthar & Zigler, 1991), and communication skills (Werner & Smith, 1982).

Another group of protective factors identified in previous research pertained to the child's social environment, including family. Included in this group of factors are family warmth, cohesion, structure, emotional support, positive styles of attachment,

and a close bond with *at least one* caregiver (Baldwin et al., 1993; Brooks, 1994; Cowen & Work, 1988; Garmezy, 1991; Gribble et al., 1993; Luthar & Zelazo, 2003; Luthar & Zigler, 1991; Masten & Coatsworth, 1998; Rutter, 1987; Werner & Smith, 1982; Wolff, 1995; Wright & Masten, 1997; Wyman et al., 1991, 1992).

Environmental protective factors outside the immediate family have been identified and include positive school experiences (Brooks, 1994; Rutter, 1987; Werner & Smith, 1982; Wright & Masten, 1997), good peer relations (Cowen & Work, 1988; Jacelon, 1997; Werner & Smith, 1982; Wright & Masten, 1997), and positive relationships with other adults (Brooks, 1994; Conrad & Hammen, 1993; Garmezy, 1991; Werner, 1997; Wright & Masten, 1997).

Examining the evolution of the construct and the study of resilience, Masten and Wright (2009) describe four waves of research undergone primarily by developmental researchers that approached the study of this construct from different perspectives across time (Masten, 2007; Wright & Masten, 1997). The first wave focused on description, with considerable investment in defining and measuring resilience, and in the identification of differences between those who did well and poorly in the context of adversity or risk of various kinds. This first wave of research revealed consistency in qualities of people, relationships, and resources that predicted resilience, and these potential protective factors were found to be robust in later research.

The second wave moved beyond description of the factors or variables associated with resilience to a focus on processes, the "how" questions, aiming to identify and understand specific processes that might lead to resilience. These studies led to new labels for processes as protective, moderating, compensatory, etc. Two of the most basic models described compensatory and moderating influences of explanatory factors. In compensatory models, factors that neutralize or counterbalance exposure to risk or stress have direct, independent, and positive effects on the outcome of interest, regardless of risk level. These compensatory factors have been termed *assets*, *resources*, and *promotive factors* in the literature. Good intelligence or an outgoing personality might be considered assets or resources that are helpful regardless of exposure to adversity. In protective or "moderating effect" models, a theoretical factor or process has effects that vary depending on the level of risk. A classic "protective factor" shows stronger effects at higher levels of risk. Access to a strong support system might be considered protective in that its protective influence is more noticeable in the face of adversity.

The third wave began with efforts to test ideas about resilience processes through intervention designed to promote resilience such as the promotion of positive parenting as advocated by Brooks and Goldstein (2001). Brooks and Goldstein translated basic principles of promoting a healthy mindset in children and disseminated this information to professionals, teachers and parents in a variety of venues.

The fourth wave of resilience includes discussion of genes, neurobehavioral development, and statistics for a better understanding of the complex processes that led to resilience (Masten, 2007). These studies often focus at a more molecular level examining how processes may interact at the biological level. Some of this work has led to concepts of "differential susceptibility" and "sensitivity to context" to explore

the possibility that some children are more susceptible or sensitive to the influence of positive or negative contexts.

Although the study of early development is often viewed as the intellectual home of the construct, "resilience" has also been described as an aspect of adult personality. Block's conception of ego-resiliency in adults was distinct from the developmental conceptions of resilience that focused on bouncing back in the face of adversity. Block conceived of "Ego-resiliency" as a meta-level personality trait associated with the conception of "ego" as a complex integrative mechanism. The basic mechanism underlying ego-resiliency according to Block may be described as flexibility in the control of emotion. According to Block, ego-resiliency is the ability to adapt one's level of emotion control temporarily up or down as circumstances dictate (Block, 2002; Block & Block, 1980). The related assumption is that this flexibility in controlling emotion is a relatively enduring trait which impacts a variety of other abilities including but not limited to survival in the face of adversity. As a result of this adaptive flexibility, individuals with a high level of resiliency are more likely to experience positive affect, and have higher levels of self-confidence and better psychological adjustment than individuals with a low level of resiliency (Block & Kremen, 1996). When confronted by stressful circumstances, individuals with a low level of resiliency may act in a stiff and perseverative manner or chaotically and diffusely, and in either case, the resulting behavior is likely to be maladaptive (Block & Kremen, 1996).

Other theorists have identified traits in adults that overlap with the notion of "resilience." One such construct was that of "hardiness" defined and studied by Kobasa and others (Kobasa, 1979; Maddi, 2002). Hardiness as defined by Kobasa was characterized by three general assumptions about self and the world (Kobasa, 1979, 1982; Maddi, 2002, 2005). These include (a) a sense of control over one's life (e.g., believing that life experiences are predictable and that one has some influence in outcomes through one's efforts); (b) commitment and seeing life activities as important (e.g., believing that you can find meaning in, and learn from, whatever happens, whether events be negative or positive); and (c) viewing change as a challenge (e.g., believing that change, positive or negative, is an expected part of life and that stressful life experiences are opportunities).

A related construct was coined by Albert Bandura "Self-Efficacy," (1997). The construct of perceived self-efficacy is the belief that one can perform novel or difficult tasks and attain desired outcomes, as spelled out in the Social Cognitive Theory (Bandura, 1997). This "can do"-cognition reflects a sense of control over one's environment and an optimistic belief of being able to alter challenging environmental demands by means of one's own behavior. Hence, it represents a self-confident view of one's capability to deal with certain stressors in life. Although not conceptually the same as resiliency, self-efficacy may be viewed as a resource component of resiliency with or without the presence of adversity.

Findings of earlier phases of developmental research of resilience as well as constructs such as "ego-resiliency" seemed to imply that resilient individuals are extraordinary and that this quality is not accessible to everyone. Later research or phase two suggested that resilience was largely a product of a complex interaction of factors in which the individual's environment played a significant part. Along

with this shift in emphasis came a questioning of whether "resilience" is extraordinary. The emergence of resilience as "ordinary magic" by Masten identified the process as characteristic of normal development and not applicable in adverse circumstances only (Masten, 2001; Masten & Powell, 2003). Masten (2001) suggested that fundamental systems, already identified as characteristic of human functioning, have great adaptive significance across diverse stressors and threatening situations. This shift in emphasis had significant implications. The "ordinary magic" framework suggested by Masten extends application of resilience theory to a broader range of individuals in varied contexts.

Masten and Wright (2009) expanded this thinking to consideration of resilience as protective systems important across the lifespan. These systems include attachment relationships and social support; intelligence or problem-solving skills; self-regulation skills involved in directing or inhibiting attention, emotion, and action; agency, mastery motivation, and self-efficacy; *meaning making* (constructing meaning and a sense of coherence in life); and cultural traditions, particularly as engaged through religion.

This shift of frameworks is accompanied by the possibility that resilience may be modified through interventions with individuals and the life circumstances in which they find themselves.

Resilience Enhancement

In recent times, examination of resilience in adults has crossed paths with the study of "positive psychology." Martin Seligman (2000) has written on the need for developing a systematic science of positive psychology to offset the prevailing focus on pathology. He points out that the major strides in prevention have come from a perspective of systematically building competency, not on correcting weakness. Seligman's approach, based in cognitive theory, is to provide structured interventions designed to build resilient attitudes that will then buffer against symptoms of depression.

Also in recent times, other clinicians have expressed a need for a further shift toward clinical application. Goldstein and Brooks (2005) and Brooks and Goldstein (2001) have called for a clinical psychology of resiliency. These authors focus on the interaction between the child and the child's social environment. Goldstein has written on the importance of the mindset of a resilient parent in raising a child with a resiliency mindset and the importance of teaching parents how to identify and foster these qualities. These authors focus on changing the family and academic environments to be more supportive of the child's resiliency.

As indicated in the paragraphs above, resilience was originally conceptualized as a characteristic of the individual, which they brought to adverse circumstances and which allowed them to weather these circumstances with better outcomes. The more recent shift to the idea of enhancing resiliency shifts the paradigm to one that considers resiliency as modifiable. With this shift it is reasonable to explore

previous research addressing modifiable ways of dealing with adversity. Examples of this application are provided in the work of Goldstein and Brooks in guiding parents and teachers in providing a more resilient mindset in working with children. The research of Doll has guided teachers and school systems in providing more "resilient classrooms and playgrounds."

Consideration of Interventions

Selection of a resiliency intervention must also take several conceptual issues into account in order to assure that the intervention suits the intended application. The first consideration is whether the intervention is for children, adolescents, or adults. Interventions will vary in the cognitive and developmental complexity of the construct(s) they are assessing. Although protective factors present in childhood may predict better outcome later in life, the actual expression and experience of resilience may differ across the lifespan.

A second consideration is whether resiliency is considered as a one-dimensional or multidimensional construct. Although early discussion of resilience has referred to it as one-dimensional, more recent discussions assume multiple dimensions. Interventions understandably are based on the assumed needs of the specific population based on theory, clinical observation or screening. Resilience-related interventions for children have traditionally focused on enhancing competence (Masten), self-efficacy (Bandura), social skills (Merrill), and school engagement (Doll). More recently, there has been more consideration of interventions to enhance emotion regulations.

As suggested by Prince-Embury and Saklofske (2014) it is time for the systematic study of empirically supported program for the enhancement of resilience. It is anticipated that programs will vary across several parameters; size of group, whether recipients are normative, clinical or at-risk. Interventions to enhance resilience will be targeted to specific population and aspect of resilience that needs to be enhanced. Finally assessment of efficacy of the intervention will be designed to tap changes in the specific aspect of resiliency in a specific population.

Assessment Challenge

The relative complexity of the construct of resilience/resiliency presents challenges in the implementation of the construct and assessment of change. How do we assess the presence or absence of resiliency? Do we need to wait and infer its presence retroactively by the presence or absence of symptoms? Given the plethora of definitions of resilience and lack of consensus one would anticipate that operational definitions for intervention and assessment would be difficult. Early researchers

employed absence of pathology in the face of adversity as their essential yardstick that resilience was present. However, the understanding that resilience is a product of complex interactions of personal attributes and environmental circumstances, mediated by internal mechanisms, has presented additional assessment challenges to developmental researchers (Luthar et al., 2000). Kaplan (1999) suggested that the difficulty of achieving statistically significant effects in these complex interactions made the value of such research questionable. Kaplan asks "Can one ever adequately account for sufficient amounts of predictive variance from retroactive assessment?" Kaplan also suggested that perhaps the construct of resilience had outlived its usefulness and should be backed up to simpler constructs like "self-confidence." Others however, have claimed that in spite of conceptual complexity, the phenomenon of resilience has too much heuristic power to be abandoned (Luthar et al., 2000). Elias, Parker, and Rosenblatt (2005) propose the use of working definitions of resilience/resiliency that satisfy two criteria: (1) does the definition add value to existing constructs in understanding circumstances; (2) does the definition inform the design of interventions. Kaplan in his 2005 review conceded that concepts are not by their nature true or false but may be evaluated with regard to their usefulness.

Studies from a developmental-psychopathology perspective have been longitudinal and have tried to capture contextual aspects of resilience specific to the group and sets of circumstances. Assessment from a developmental perspective has often focused on *assets* defined as the achievement of positive outcomes such as reaching developmental milestones. This approach has been useful in longitudinal studies in which researchers could examine risk and protective factors retrospectively from the numerous pieces of information carefully gathered about study participants (Werner & Smith, 1982, 1992).

These studies have employed extensive batteries of preexisting tests, along with measures of achievement, to assess personal resiliency. However, this research has used different measures across studies and across populations, making it difficult to compare across studies and across groups. The research-based tools employed in previous research have often been impractical for widespread use in the schools and communities because they are too labor-intensive, expensive, or focused on the presence or absence of psychiatric symptoms. In addition, identification of assets and developmental milestones occurs after the fact and is not useful in the prevention of negative outcome. This leaves the identification of risk conditions regardless of individual differences as the source of preventive identification. Consequently, the lack of screening tools within conditions of risk and common metrics has resulted in difficulty in assessing the need for, choice of, and effectiveness of preventive intervention strategies in a way that is specific and allows comparison across methods and populations.

Assessment tools have been developed in an attempt to tap resilience/resiliency. These tools have most commonly been constructed for adults, each focusing on different aspects of the construct. These instruments have undergone some scrutiny. For example, some critics claim that resilience/resiliency cannot be assessed in the

absence of adversity. Ahern, Kiehl, Sole, and Byers (2006) reviewed some instruments that were designed to measure resilience. They focused on six measures, and the range of constructs measured included "protective factors that support resiliency," "successful stress-coping ability," "central protective resources of health adjustment," "resilient coping behavior," and "resilience as a positive personality characteristic that enhances individual adaptation" (p. 110). These authors concluded that rather than specifically assessing resilience as the ability to bounce back, resist illness, adapt to stress, or thrive in the face of adversity, previous measures have generally assessed protective factors or resources that involve personal characteristics and coping styles. These authors thus suggest that assessment has not captured the process of resilience or bouncing back from adversity. Prince-Embury and Saklofsky (2013) have reviewed various assessment tools that claim to tap resiliency and have concluded that criteria of success include a clear working definition of resilience, assessment that is consistent with the definition, assessing the construct reliably and validly and practical/clinical utility of the measure.

Following is a list of guidelines for the assessment of change in resilience.

Guidelines for the Assessment of Changes in Resilience.

1. The first requirement is a clear, operational definition of resilience/resiliency. In this regard a distinction between resilience and resiliency is important because one is defined as a complex interaction between the person and the environment which is more difficult to assess as change needs to be established in the environment as well as the individual impacted and some evidence of the interaction provided. When resiliency is defined as the personal characteristics of the individual, change may be somewhat easier to assess.
2. The second question to consider is whether change in resiliency targeted is one-dimensional or multidimensional. The practitioner may consider resilience as multidimensional but if the intervention is designed to target one aspect of that definition, the assessment should assess that aspect. For example, if an intervention targets enhancing sense of mastery and the assessment targets primarily social competence, it might be less likely to fully tap changes associated with the intervention. Also caution should be used in generalizing the effects of gains in one aspect of resilience to all aspects of resilience without documentation.
3. In the attempt to find statistical significance of change to document the effectiveness of an intervention, one should anticipate the problems with doing this; small n, sample with too much variability in resiliency, or samples with resiliency that is adequate to begin with so that any change would be small.
4. Caution should be exercised in distinguishing between the resiliency that is being assessed and the inferred outcomes to which it relates. Are these relationships documented? For example, if a significant change is found in social skill or competence, are these changes durable, are they situation-specific or generalizable?

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Chapter 3
Three-Factor Model of Personal Resiliency and Related Interventions

Sandra Prince-Embury

Section I: Three-Factor Model of Personal Resiliency and Related Interventions

This chapter will describe a three-factor model of personal resiliency (Prince-Embury, 2006a, 2006b, 2006c, 2007) that is based on three core developmental systems commonly associated with adaptive functioning. In addition, this chapter will summarize and integrate the developmental theory underlying the three-factor model, present theory, and research evidence supporting the model. This model was developed by Prince-Embury (2006a, 2006b, 2006c, 2007) as a way of simplifying resilience theory for practical application, in conjunction with the development of the Resiliency Scales for Children and Adolescents (RSCA) (Prince-Embury, 2006a, 2006b, 2006c, 2007) as a user friendly tool for tapping the three-factor model.

Broad-Based Resilience Issues

The definition of resilience as a product of complex interactions of personal attributes and environmental circumstances, mediated by internal mechanisms, has presented a challenge to those interested in applying the construct in the past (Luthar, Cicchetti, & Becker, 2000). In an effort to clarify constructs, theorists have distinguished "resilience" from "resiliency" in that the former is defined as interactive and contextual and the latter addresses personal attributes of the individual (Luthar & Zelazo, 2003; Luthar et al., 2000; Masten, 1994). Studies of resilience have been longitudinal, have employed a developmental-psychopathology perspective, and

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have tried to capture contextual aspects of resilience specific to groups and sets of circumstances. Studies assessing personal resiliency, in an effort to be comprehensive, have employed extensive batteries of preexisting tests, along with various criteria of competence, achievement, or successful adaptation. On a practical level, Masten has suggested that there is work to be done to make the application of resiliency constructs more field-friendly (Masten, 2001; Masten & Powell, 2003).

A first step in understanding and applying the construct of resilience is a clear and user friendly definition. That said, a frequent criticism in the field has been that there has not been consensus on a definition of the construct (Kaplan, 2005). Resilience research has identified lengthy lists of protective factors present in the child's family, school, and community as well as in personal characteristics of the child. In addition, an ecological perspective also considers the complex interaction of these factors and their effect on the child.

Given the conceptual complexity of the field, practical application to enhance resilience is similarly complex. For example, selecting what aspects of resilience to enhance, what kind of intervention to use, and how to assess effectiveness of the intervention present multiple challenges. First practitioners must decide whether to focus on the environmental factors (context), personal attributes of the youth (resiliency), or the interaction between the two (ecological process). Interventions designed to effect the interactions that underlie resilience require multiple approaches and specific plans on how to implement them in conjunction with each other. Interventions designed to effect personal attributes should be based on developmental theory and research showing that these attributes are modifiable and associated with successful behavioral outcome.

Three-Factor Theory of Personal Resiliency

The three-factor model of personal resiliency was developed by Prince-Embury (2006a, 2006b, 2006c, 2007) as a way of simplifying resilience theory for practical application. The model is based on three previously identified attributes of personal resiliency reflective of three core developmental systems: Sense of Mastery, Sense of Relatedness, and Emotional Reactivity and the relationship of these factors to one another (Prince-Embury, 2006a, 2006b, 2006c, 2007). The model focuses on the personal experience of the child and not actual ability or performance as assessed by others. Although it recognized that actual ability as assessed by others is important, the three-factor model assumes that the child's experience mediates between external protective factors and positive behavioral outcomes.

It is important to note that the three-factor model focuses on subjective experience which may be modifiable as opposed to personality traits that might be more fixed. Also the model focuses on psychological processes as opposed to more physically and neurologically based processes such as cognitive ability, physical strength, or ability. The developmental research that demonstrates the relevance of the three core constructs to children's subsequent coping and success is discussed below.

Sense of Mastery

One set of core mechanisms that have been consistently identified as important for resiliency in developmental and resilience research are sense of mastery and self-efficacy. White (1959) suggested that children's sense of competence or efficacy provides them with the opportunity to interact with and enjoy cause and affect relationships in the environment. According to White, a sense of competence, mastery, or efficacy is driven by an innate curiosity, which is intrinsically rewarding and is the source of problem-solving skills. Bandura (1977, 1993) suggested that students' self-efficacy beliefs for regulating their own learning and mastering academic activities determine their aspirations, level of motivation, and academic accomplishments. The construct of competence also found its way into what has been termed the third wave of resilience research. This work examined competence as a strategy for preventing or ameliorating behavioral and emotional problems (Masten, Burt, & Coatsworth, 2006; Masten & Coatsworth, 1998). Consistent with this, the Project Competence group (Masten & Obradovic, 2006) focused on competence criteria for positive adaptation in age-salient developmental tasks (Masten & Powell, 2003). Several studies conducted as part of the Rochester Child Resilience Project supported the hypothesis that positive expectation is related to resilience. Positive efficacy expectations in 10- to 12-year-olds predicted better behavioral adaptation and resilience to stress (Cowen, Pryor-Brown, Hightower, & Lotyczewski, 1991). Positive expectations about their future predicted lower anxiety, higher school achievement, and better classroom behavior control (Wyman, Cowen, Work, & Kerley, 1993). Previous research and theory suggest that children and youth who have a greater sense of competence/efficacy may be more likely to succeed in a school environment and less likely to develop pathological symptoms.

The implication of this body of theory and research is that interventions designed to enhance personal resiliency might address a child's sense of mastery, self-efficacy, and competence in a variety of ways such as helping the child's caretakers to have a more resilient mindset (Brooks & Goldstein, 2001) and/or making sure that the child has some success experiences to support more realistic positive expectations (hope). Also important here would be teaching that success is not instantaneous but is achieved through repeated trials and the ability to change one's strategy (adaptability).

Earlier research, theory, and interventions for children dealing with sense of mastery have focused on related constructs such as Optimism (i.e., Seligman's *Optimistic Child*, 1995). Seligman initially identified "learned helplessness" as the process by which failure experiences may lead to expectations of failure and decreased efforts to succeed. Consequently Seligman and others suggested "learned optimism" as a way of increasing expectations that may lead to more efforts and more success experiences (Seligman, Reivich, Jaycox, & Gillham, 1995). The Resilience Program at the University of Pennsylvania grew out of this earlier work employing cognitive behavioral techniques to overcome depression and enhance resiliency in children (Reivich, Gilham, Chaplin, & Seligman, 2005).

Cognitive behavior treatments for depression are based on the belief that depression is based in part on a triad of hopelessness about the future, oneself, and the world in general. Consistent with this assumption, many cognitive behavioral treatments focus on challenging negative assumptions and encouraging more positive reframing of beliefs. This type of intervention is most commonly associated with the treatment of depression. However, implications are that the ability to change ones mindset is associated with reduction of symptoms of depression and prevention of reoccurrence.

Focus on enhancing sense of mastery is not limited to psychological theory or clinical treatment. Another area of mastery intervention is found in the non-clinical arena of "adventure education," a distinct form of education that originated in the 1960s associated with "experiential education." Adventure education programs in general have the potential to support resiliency in young people as many of the experiences offered in these programs mimic the internal and external factors necessary for resilience (Beightol, et al., 2012; Beightol, Jevertson, Gray, Carter, & Gass, 2009; Benard & Marshall, 2001). Neill and Dias (2001) found that young adults who participated in a 22-day Outward Bound program reported increases in psychological resilience compared to a control group. Ewert and Yoshino (2011) found that college students who participated in a short-term adventure-based experience enhanced resilience in the following ways: perseverance, self-awareness, social support, confidence, responsibility to others, and achievement. One example of such an adventure education is described by Whittington, Budbill, and Aspelmeier (2013). These authors studied the experience of girls, ages 10–16 who participated in a Dirt Divas program. Dirt Divas is a mountain bike program designed to support the positive development of adolescent girls including the development of the girls' resiliency. These authors found a small but significant increase in sense of mastery as assessed by the RSCA (Prince-Embury, 2007). Another example of adventure education found to yield positive changes in resiliency is the Chicago Adventure Therapy Program described in an evaluation by Hutson (2012).

It might be hypothesized that adventure education programs enhance resiliency by exposing youth to challenging (difficult), usually outdoor experiences to which they have had limited if any previous experience (novelty). These planned activities are similar to experiences that youth might in the future experience as adversity, situations that are novel for which they have no prior experience, and that are difficult in that the youth may have established no prior skill set. Differences between adventure education and adversity are that the activities are planned as opposed to unplanned and chosen as opposed to forced, and ways of learning the necessary skill sets are built into the experience. Adventure education experiences may enhance resiliency or youth's ability to face future adversity in the following ways. Youth may learn to reconceptualize novel or unexpected experiences as challenges rather than adversities. Youth may learn that not having the skills to deal with a novel situation does not prevent learning these skills from others. In summary, adventure experiences may provide youth the experience of eventually mastering a novel experience for which they had no prior skill set.

Sense of Mastery Enhancing Tools

Sense of Mastery Enhancement for Young Children

For younger children, strength-based interventions may begin by preparing the child to experience a sense of mastery by changing expectations. Brooks and Goldstein (2005) advise parents and teachers to help youth to develop a "resilient mindset." Three examples of preparing children for mastery are presented below.

The power of "*I think I can*." Positive self-expectation may be discussed with children and their caretakers by pointing out that research shows that whether you think you can do something or not makes a big difference in whether you do it. Children's books and stories demonstrating positive expectation in the face of difficulty may be provided.

Using baby steps: Mastery and self-determination may be introduced with the idea of baby steps, or breaking tasks down into smaller steps and tackling one at a time: step 1, step 2, step 3. This concept may best be demonstrated by example provided by the parent or clinician. Sometimes it helps to write the steps down or to remind oneself by saying baby step 1, baby step 2, etc.

Praising yourself: Mastery involves the ability to recognize and reward oneself when something is accomplished. Some children may lose their innate sense of pleasure in competence when they enter into social circumstances where not all of their acts are rewarded by teachers and parents. The ability to reward oneself for accomplishments should be nurtured by asking the children each night before they go to bed to think about and share about things that they did and were proud of that day.

Mining for Mastery and Strength Identification

Children and adolescents who have experienced more failure than success in their lives may have lost the ability to identify their own strengths. For such youth, it is helpful to provide interventions that help them remember and identify positive experiences associated with hidden, forgotten, buried, or uncultivated strengths. For most youth, there is something that they can recall having done well.

Block and Block (1980) originally coined the term "islands of competence" and Brooks and Goldstein (2001, 2008) have recently expanded this concept with numerous clinical examples of identifying islands of competence to enhance resilience in youth. In addition, once areas of strength are identified, preventive intervention may further identify, elaborate, enhance, and generalize these strengths. These interventions can help youth generalize their strengths to other areas where they may not feel as successful. Structured interventions might help youth learn specific skills and how these skills could be employed in a variety of arenas.

Self-Praise and Self-Acknowledgment

As indicated above recognizing mastery experiences is important in developing a Sense of Mastery. Children seem to develop this ability early in life as recognized by White in motive for competence. Over time, the ability to experience competence becomes inextricably linked to acceptance and approval by significant others. In some cases parents are active in acknowledging and praising their children for mastery. In other cases this acknowledgement is not forthcoming or is replaced by censure by busy parents whose attention is captured only by negative behavior. In the latter case children and teens may experience both the lack of praise for mastery experiences and the loss of the ability for self-praise. Behavior therapy with children often focuses on helping parents to accurately identify and reward mastery experiences in their children.

Identifying Strength Distracters for Children Adolescents

Once strengths are identified and understood, the discussion may turn to distracters or reasons why the youth cannot appreciate or expand on a particular strength. Distracters may include many factors such as poverty, limited resources, lack of parental support, or an already internalized expectation that "it is not going to work anyway." Clinical intervention can then focus on identifying the strength distracters that are operating in the youth's life and developing strategies for diffusing them. Cognitive behavioral therapy techniques may be very useful in this regard.

Sense of Relatedness

Reviewing five decades of resilience research in child development, Luthar (2006, p. 780) concluded, "Resilience rests, fundamentally, on relationships." The importance of relationships for human resilience has been noted in every major review of protective factors for resilience (see Masten & Obradovic, 2006). The importance of relationships and relational ability as mediators of resilience has been supported in research by developmental psychopathologists such as Werner and Smith (1982). Throughout their writing, Werner and Smith have stressed the importance of children having relationships with caring adults other than, or in addition to, their parents. Werner and Smith (1982) noted that resilient youth sought support from non-parental adults (especially teachers, ministers, and neighbors) more often than non-resilient youth. These supportive relationships were influential in fostering resilience.

The implication from this body of literature is that social relatedness is important but the mechanism by which this occurs is explained in a variety of ways. Youth may view relationships as providing specific supports in specific situations.

In addition, internal mechanisms that emerge from youth's cumulative experience of previous support may shield youth from negative psychological impact by providing an internalized expectation of support. This expectation might lead to a youth's ability to find and use support when needed. Previous research has indicated that perceived support, as distinguished from actual support, is the dimension of social support that is most strongly related to psychological well-being in adults and children (Barrera, 1986; Cohen & Wills, 1985; Jackson & Warren, 2000; Sarason, Shearon, Pierce, & Sarason, 1987).

Developmental theorists have worked throughout the twentieth century to identify and label internal mechanisms of relatedness. Psychosocial theories of development, such as that of Erik Erikson (1963), identified the first developmental psychosocial process that occurred in infancy through interaction between the child and the primary caregiver as the development of trust versus distrust. The significance of trust was identified by Erikson (1963) as the first stage of social-emotional development, upon which all other social development is built. Erikson defined basic trust as the ability to receive and accept what is given. Another theorist, Bowlby (1969), observing the interaction between the infant and primary caregiver, conceptualized this early social interactive process as the development of attachment, which has implications for the individual's ability to relate to others throughout his or her lifetime. The attachment system was originally described by John Bowlby in three volumes on attachment and loss (1969) and later examined in many studies of attachment in human development (Ainsworth, 1989; Bolby, 1982, 1988; Bretherton & Munholland, 1999; Sroufe, Carlson, Levy, & Egeland, 1999; Thompson, 2000).

Interventions aimed at enhancing a child's sense of relatedness are abundant although not necessarily labeled as resiliency interventions. Developmental theories cited above support the importance of early parenting. Interventions intending to address this core level of establishing basic trust might identify circumstances where early parenting might be lacking and help caretakers to improve their parenting skills. Interventions aimed at increasing a sense of relatedness through ongoing support might focus at the level of the family through family therapy or psychoeducation helping caregivers increase their capacity for and ability to communicate the presence of support for their child. Interventions aimed at increasing sense of relatedness through comfort with others might focus on enhancing the child's social skills and capacity for empathy or understanding the perspective and feelings of others. Interventions aimed at increasing sense of relatedness through tolerance of others might educate that differences are natural and may be resolved through better communications skills.

Interventions Targeting Sense of Relationship

As mentioned previously, there is consensus among developmental theorists on the importance of relationship for resiliency in youth and adults alike. The ability to relate to others and to gain strength and resilience from these relationships is a multi-faceted and complex process.

Perceived Social Support

Developmental theorists have acknowledged the significance of perceived support for resiliency in dealing with adversity. Research has indicated that an individual's perception that social support is available and accessible is the most important dimension of social support. This perception is predictive of psychological well-being and is not directly or strongly linked with enacted social support (see Hogan, Linden, & Najarian, 2002). Thompson, Flood, and Goodvin (2006) suggest that it is sometimes more important to focus on the persons' subjective experience of supportiveness by carefully examining their expectations of support in relation to what they perceive to be provided by those around them. These authors also suggest that (1) troubled individuals may be less capable of viewing others as sources of available support because of their emotional turmoil and (2) individuals in difficulty may be less able to mobilize supportive networks when they are needed. These ideas highlight the need to explore with children and adolescents what their supports are, before a time of crisis, so that the youth can think about it objectively and think of how they might ask for help in different circumstances. Also, family therapy increasing positive communication between parents and their children might facilitate the child's ability to ask for help and the parent's ability to encourage this process.

Developing Possible "What If" Support Networks

With younger children the idea of support networks can be explained as a list of people that you can turn to for help when you need to. The caregivers may initiate a list of people who might provide support when needed. The list can include family members, teachers, friends, neighbors, and church members. Then several types of situations may be discussed. For each situation the children may be asked to identify people who they could ask for help, how they would approach them, and what they would say. With young children, parents should be involved in this process, emphasizing the importance of a child's perception of support networks and parent's support in this process.

Exploring Trust

Developmental theories suggest that the establishment of basic trust begins very early and is built upon throughout development. The implication is that basic trust is established as a core experience and is not easily modified. Enhancing a youth's experience of trust has been the subject of much therapeutic interest beyond the scope of this chapter. Traditional therapy approaches have often focused on providing supportive therapeutic relationships for youth as emotionally corrective experiences. Some clinicians work within the context of family, coaching parents in providing a more nurturing experience for youth within the home (Brooks & Goldstein, 2001). Other programs take a skills enhancement approach which

assumes that increasing a youth's social skills will increase the likelihood of positive relationships with others, which in turn may enhance the youth's overall sense of relatedness. School psychologist, such as Beth Doll et al., (2004), focus on ecological methods of changing classrooms to be more supportive environments.

Enhancing Social Skills and Enhancing Empathy

In recent years much effort has been paid to enhancing social skills in children such as communication, cooperation, assertion, empathy, engagement, and self-control, which may be broken down into teachable skills such as improving eye contact, initiating and maintaining conversations, understanding others' feelings, and promoting empathy, sharing, and maintaining personal space (Alvord, Zucker, & Grados, 2011; de Boo & Prins, 2007). Although not necessarily associated with the enhancement of resilience, the underlying rationale has been that helping children to better understand the perspective of others and the impact of their own social behavior will ultimately improve their ability to relate to others and develop positive relationships with other. The expectation is that this intervention will reduce conflict with others, increase positive engagement at school, and ultimately improve relational expectations and ability. The enhancement of social skills and empathy has been incorporated under the general rubric of social-emotional learning (SEL). Merrill, known for his work in this area, informs us that there are many definitions of SEL but offers the following two definitions by others, "SEL programming builds children's skills to recognize and mange their emotions, appreciate the perspectives of others, establish positive goals, make responsible decisions, and handle interpersonal situations" (Greenberg et al., 2003, p. 46) and "SEL, is a process through which we learn to recognize and manage emotions, care about others, make good decisions, behave ethically and responsibly, develop positive relationships, and avoid negative behaviors" (Zins, Bloodworth, Weissberg, & Walberg, 2004, p. 4). The success of SEL programs in schools has been demonstrated in a metastudy by Wilson, Gottfredson, and Najaka (2001) which noted positive effects such as reductions in delinquency and substance abuse, reduction in school dropout and nonattendance, and increases in both cognitive and behavioral forms of self-control and social competence.

Emotional Reactivity

Developmental research has demonstrated that children's development of pathology in the presence of adversity is related to their emotional reactivity and their inability to regulate this reactivity. Specifically, strong emotional reactivity and related difficulty with regulation of this reactivity have been associated with behavioral maladjustment and vulnerability to pathology. Emotional Reactivity is in part the child's arousability or the threshold of tolerance that exists prior to the occurrence of adverse events or circumstances. Rothbart and Derryberry (1981) have defined

emotional reactivity as the speed and intensity of a child's negative emotional response. Children's reactivity varies in its intensity, sensitivity, specificity, windows of tolerance, and recovery (Siegel, 1999). Conversely, emotional regulation, or the ability to modulate emotional responses, is a significant factor in fostering resilience (Cicchetti, Ganiban, & Barnett, 1991; Cicchetti & Tucker, 1994; Eisenberg, Champion, & Ma, 2004). Regulation and redirection of emotional arousal are necessary for children to function adaptively in emotionally challenging situations (Cicchetti et al., 1991; Thompson, 1990).

Interventions aimed at reducing emotional reactivity have become increasingly abundant in recent years although not necessarily identified as enhancing personal resiliency. The three-factor model of personal resiliency suggests that decreasing emotional reactivity serves to decrease the child's vulnerability to adversity and hence enhancing personal resiliency. Also decreasing emotional reactivity may allow the child to better employ other aspects of personal resiliency such as sense of mastery and sense of relatedness. Interventions aimed at reducing emotional reactivity may focus on decreasing the child's basic sensitivity. One class of interventions may include increasing awareness of targets that may trigger the child's sensitivity. Other types of interventions might aim at reducing the intensity of the sensitivity through medication or relaxation exercises aimed at changing the baseline level of arousability.

Another group of interventions addressing emotional reactivity focus on the child's ability to recover once upset. Children vary in their ability to recover from emotional upset gaged by how long this recovery takes. Some youth once upset seem to get stuck in the negative emotional reactivity while others experience quick recovery. Interventions aimed at increasing recovery skills may be referred to as emotion regulation, self-soothing, self-talk, relaxation, or breathing exercises among other things.

An additional area for intervention is preventing or reducing the impairment in functioning often associated with emotional reactivity. Again youth vary in the extent to which emotional upset impairs their functioning. Some youth can continue to function fairly well even when they are very upset. Other youth become nonfunctional when upset describing themselves as having a brain freeze, in a fog, dazed, or in a blind rage. Youth's adaptive behavior may be interrupted by emotional upset leading to poor judgment due to inability to process information properly, interrupted relationship ability manifested in withdrawal, inappropriate social behavior, or impulsive acting out. Interventions designed to address these impairments may be pharmaceutical in nature or take the form of teaching behavioral management techniques.

Interventions to Reduce Emotional Reactivity

Interventions designed to reduce emotional reactivity should be informed by an understanding of the developmental underpinnings of high reactivity. Developmental researchers have informed us that a predisposition for high emotional reactivity may

be related to temperament and may be exacerbated by many factors including intrauterine contamination, and early traumatic experiences that have been shown to alter the nervous system. Research of various psychiatric disorders suggests a "kindling" effect through which triggering of the nervous system that occurs in the initiation of a symptom event lowers the threshold at which this symptom event may occur in the future. In this respect the negative impact of heightened emotional reactivity may be cumulative. A temperament-based predisposition to high emotional reactivity may be exacerbated by early traumatic events, which may increase the likelihood of a triggered symptom event, which in turn may increase the likelihood of future symptom events. This series of circumstances suggests the value of prevention at any point along the way including prenatal care, parent education, and good public health policy decisions. Once high emotional reactivity is present, intervention may include increased awareness, education, emotion regulation training, and medication.

For youth who have higher-than-average emotional reactivity, preventive intervention may focus initially on intentional management of emotional reactivity. This preventive strategy might start by helping the youth to identify emotional reactivity as a potential source of vulnerability. Some youth may already be aware of this, but others may need time to fully understand the connection. Awareness may be enhanced by breaking emotional reactivity down into the more discrete and observable components of sensitivity, recovery, and impairment. Once these constructs are understood by the youth in terms of his or her experience, strategies for self-monitoring and eventual self-management are possible. Interventions may focus on identifying triggers for emotional reactivity and helping youth quantify and communicate the difficulty they have in various types of situations.

Sensitivity

Interventions for reducing sensitivity may involve introducing the notion that everyone has triggers that upset him or her and that some people are more reactive than others. The youth's reactivity can be compared to others for the purpose of better understanding his or her own sensitivity. The counselor can explain that although emotional reactivity is to some extent automatic, it is possible to manage it by identifying triggers, learning to anticipate them, and learning better strategies for calming down, such as self-relaxation or systematic desensitization.

Work on reducing sensitivity might begin by generating a list of specific circumstances, hot spots, or trigger events that are upsetting to the youth. Such a list may be used to work on anticipating and managing response to triggering events.

Recovery

Recovery time reflects the time that it takes to recover from emotional upset. Recovery time is important because the longer the time to recover, the longer the youth may experience discomfort and the longer the youth is exposed to possible impairment

associated with the emotional reactivity. Questioning about a youth's ability to recover from emotional upset can introduce the notion that recovery from upset is within the control of the upset individual. Techniques for calming down or self-soothing may be introduced such as deep breathing, relaxation exercises, progressive muscle relaxation, guided imagery, self-talk, or a combination of these techniques.

Further inquiry can also uncover self-strategies that the youth employs for self-calming intentionally and unintentionally. These self-calming behaviors may be positive, such as removing himself or herself from the situation or calling a friend. On the other hand, there can be negative coping strategies, such as use of drugs or alcohol, that may further increase the possibility of impairment. The negative impact of using negative strategies should be discussed with the youth and positive self-calming strategies introduced.

Impairment

Emotional Reactivity is known to have a potentially impairing effect on the functioning of children, adolescents, and adults. The impairment may affect any of the developmental systems such as cognitive or executive functioning, behavioral functioning, and relationship functioning. Interventions might seek to help the youth further understand the potentially impairing effect of emotional reactivity, types of impairment that occur, and strategies to ameliorate this impairment. For example, a youth may also be asked to write down where he or she makes the most mistakes, get most confused, and gets into the most trouble and then to describe what is happening in these situations. The youth may discover that a common theme is that he or she cannot think clearly when upset. Positive intervention strategies might be introduced such as delaying decisions or actions while upset and not thinking clearly and waiting until more clear thinking prevails. Pros and cons of various strategies may then be discussed.

Summary of Interventions and the Three-Factor Model

The above description illustrates how the three-factor model of personal resiliency can allow simplification of understanding complex processes by matching specific interventions with different aspects of resiliency in youth functioning. The advantages of simplification and clarification are many. In an environment of economic concern it is important to make sure that the focus of intervention matches the specific need of the group or individual. Individuals defined as at risk may differ in their relative areas of strength versus vulnerability so that one approach fits all may not be the most efficient. Youth who have good relatedness and sense of mastery may need resilience enhancement in the area of emotional reactivity. Conversely, those with low sense of mastery and adequate relatedness and emotional reactivity may need resilience enhancement in sense of mastery primarily. That said, it is important to

remember that resiliency in functioning is complex. Therefore interventions designed to impact one aspect of resiliency may also impact others as these aspects are all interrelated. For this reason it would be helpful to have tools for outcome assessment that track whether the intervention enhanced the area of resiliency for which it was intended as well as unintended benefits. It would be interesting to ascertain whether a decrease in delinquency was associated with decreased emotional reactivity or an increase in sense of mastery. Similarly it would be helpful to determine whether an increase in school engagement was associated with increased sense of mastery or relatedness or both. Understanding these relationships requires assessment tools that identify specific areas of resiliency, relate to specific interventions targeting these areas, and assess these areas in a systematic and consistent manner.

Section II: Resiliency Scales for Children and Adolescents and Construct Validity

Description of the Resiliency Scales for Children and Adolescents

The RSCA (Prince-Embury, 2006a, 2006b, 2006c, 2007) were developed for the purpose of researching and applying the three-factor model of personal resiliency. The RSCA is a self-report instrument designed to tap the three core developmental systems defined above as experienced and expressed by a child or adolescent. The RSCA consist of three global scales designed to reflect the three designated underlying systems: Sense of Mastery, Sense of Relatedness, and Emotional Reactivity. *T* scores on these three global scales comprise a Personal Resilience Profile which graphically displays the child's relative strengths and vulnerabilities. Two composite scores, the Resource Index and the Vulnerability Index, are summary scores that quantify the child's relative strength and vulnerability for further simplification and use in preventive screening. The three global scales comprise ten subscales that can be used to understand the child's specific strengths and vulnerabilities in more depth. All scores are standardized on age- and gender-based normative samples that are stratified by race/ethnicity and parent education level to match the US Census for 2003 (Prince-Embury, 2007, 2008).

The *Sense of Mastery* Scale is a 20-item self-report questionnaire written at a third-grade reading level. Response options are ordered on a five-point Likert scale: 0 (Never), 1 (Rarely), 2 (Sometimes), 3 (Often), and 4 (Almost Always). The *Sense of Mastery* Scale consists of three conceptually related content areas: *optimism* about life and one's own competence; *self-efficacy* associated with developing problem-solving attitudes and strategies; and *adaptability*, being personally receptive to criticism, and learning from one's mistakes. Higher scores on this global scale or subscales suggest higher personal resiliency in this developmental system. Internal consistencies for the Sense of Mastery Scale are good with an alpha of .85 for youth ages 9–11, .89 for youth ages 12–14, and .95 for youth ages 15–18.

Test–retest reliability coefficients were .79 for youth ages 9–14 and .86 for youth ages 15–18 (Prince-Embury, 2007).

The *Sense of Relatedness* Scale is a 24-item self-report questionnaire written at a third-grade reading level. Response options are frequency-based, ordered on a five-point Likert scale: 0 (Never), 1 (Rarely), 2 (Sometimes), 3 (Often), and 4 (Almost Always). Within this scale, a sense of relatedness refers to *comfort* with others, *trust* in others, perceived access to *support* by others when in need, and *tolerance* of differences with others. Higher scores on this global scale or subscales suggest higher personal resiliency in this developmental system. Internal consistency is good to excellent for the Sense of Relatedness Scale: .89 for children ages 9–11, .91 for children ages 12–14, and .95 for youth ages 15–18. Test–retest reliability coefficients were good; .84 for youth ages 9–14 and .86 for youth ages 15–18 (Prince-Embury, 2008).

The *Emotional Reactivity* Scale is a 20-item self-report questionnaire written at the third-grade reading level. Response options are ordered on a five-point Likert scale: 0 (Never), 1 (Rarely), 2 (Sometimes), 3 (Often), and 4 (Almost Always). Unlike the Sense of Mastery and Sense of Relatedness scales, lower scores on the Emotional Reactivity Scale are indicative of low reactivity and high scores suggest higher vulnerability in this developmental area and more likelihood of less personal resiliency. This scale consists of three related content areas: the *Sensitivity* subscale assesses the child's threshold for emotional reaction and the intensity of the reaction, the *Recovery* subscale describes the length of time required for recovering from emotional upset, and the *Impairment* subscale describes the child's experience of disrupted functioning while upset. Internal consistency for the Emotional Reactivity Scale is excellent with alphas of .90 for youth ages 9–11, .91 for youth ages 12–14, and .94 for youth ages 15–18. Test–retest reliability coefficient was .88 for youth ages 9–14 and youth ages 15–18 (Prince-Embury, 2007).

Summary Index Scores

Although based on a three-factor model the RSCA three global scale scores may be condensed into two summary scores for further simplification. The RSCA Summary Index scores combine information into two scores, which may be unfolded to provide more detailed information at the global and subscale levels. The Index scores were developed based on empirical analyses of RSCA Scale score profiles, factor analytic studies, and validity studies (Prince-Embury, 2006a, 2006b, 2006c, 2007; Prince-Embury & Courville, 2008a; 2008b).

Factor analytic studies indicate that although the three RSCA scales represent three distinct factors, two of these factors, Sense of Mastery and Sense of Relatedness, are highly correlated consistent with the assumption that both represent protective factors of resiliency (Prince-Embury & Courville, 2008a). Thus theory and analyses of empirical data suggested the first index score, the *Resource Index*, which is calculated as the standardized average of the Sense of Mastery and Sense of Relatedness Scale scores. This average is an estimate of students' personal strength or resources, weighting *Sense of Mastery* and *Sense of Relatedness* equally.

It must be emphasized that equal weighting of these factors is an estimate for simplification and that more precise weights of these factors in protective significance may differ across groups and/or individuals. Internal consistency for the *Resource Index* was excellent with alpha coefficients of .93 for youth ages 9–11, .94 for youth ages 12–14, and .97 for youth ages 15–18. Test–retest reliability coefficient was .90 for youth ages 9–14 and .85 for youth ages 15–18 (Prince-Embury, 2007). Resilience theory suggests that youth who perceive themselves as having sufficient personal resources will be more resilient and less likely to develop psychopathology as a consequence of adversity than those who experience themselves as having insufficient personal resources.

Developmental theory suggests that an individual's resiliency relates to whether the individual has sufficient resources and whether these resources are sufficient to offset the amount of personal risk experienced by the individual. The *Vulnerability Index* is designed to estimate the discrepancy between an individual's personal risk and perceived available personal resources. The *Vulnerability Index* score is calculated as the standardized difference between the *Emotional Reactivity T* score and the *Resource Index T* score. It quantifies children's personal vulnerability as the relative discrepancy between their combined self-perceived resources (the *Resource Index*) and their fragility as described by emotional reactivity the *Emotional Reactivity Scale* (Prince-Embury, 2007). Internal consistency for the *Vulnerability Index* score is excellent with alpha coefficients of .93 for youth ages 9–11, .94 for youth ages 12–14, and .97 for youth ages 15–18. Test–retest reliability coefficient was .83 for youth ages 9–14 and .93 for youth ages 15–18. Personal vulnerability would be indicated by a high *Vulnerability Index* score which would indicate that students' personal resources were significantly below their level of emotional reactivity.

Psychometric Adequacy of the RSCA

Reliability

Cicchetti (1994) suggests that coefficient alphas at or above .70 are adequate, at or above .80 are good, and at or above .90 are excellent. Alpha coefficients of .90 are thought of as adequate for tracking individual scores over time. Alpha coefficients of .80 or more are considered adequate for tracking group scores over time. Using these criteria, reliability evidence was excellent for the RSCA Index scores, good for the global score, and adequate for most subscales. The RSCA Index and global scale scores show good or excellent internal consistency across age and gender groups and, as expected, greater internal consistency was evidenced with increased age (Prince-Embury, 2007). For children ages 9–11, the *RSCA Index* scores and the *Emotional Reactivity Scale* score meet the criterion of alpha coefficient >.90 for individual-level tracking. The *Sense of Mastery* and *Sense of Relatedness Scale* scores meet the criterion of .alpha coefficient >.80 for group-level tracking. For children ages 12–14, the *RSCA Index* scores and all three global scores meet the criterion for individual-level tracking. Six of the *RSCA* subscales met criterion for

Table 3.1 Alpha coefficients for the RSCA global scales across six countries

Scale	Canada 2009 (543)	Canada 2010 (390)	China (726)	Brazil (1,226)	Lebanon (599)	Nairobi, Kenya (83)	South Africa (487)
Mastery	.90	.92	.95	.83	.78	.70	.74
Relatedness	.92	.93	.94	.90	.86	.74	.83
Emotional Reactivity	.90	.91	.89	.87	.87	.80	.76

group-level tracking. For youth ages 15–18, both Index scores, three global scale scores, and three subscale scores meet the criterion for individual-level tracking. For this age group all scores meet the criterion for group-level tracking. Hence the RSCA demonstrates good internal consistency, supporting the conceptual and theoretical derivation of the scale, subscales, and indices. Cross-cultural studies indicate adequate to excellent internal consistency for the three global RSCA Scale scores (see Table 3.1). The RSCA has been employed previously with youth in Canada, South Africa (Van Wyk, 2011), Kenya (Tignor & Prince-Embury), China (Cui, Teng, Li, & Oei, 2010), Brazil (Jordani, 2008), and Lebanon (Ayyash-Abdo & Sanchez-Ruiz, Unpublished manuscript).

Research and Validity Evidence

Construct Validity

Prince-Embury and Courville (2008a) established construct validity evidence for the three-factor model of personal resiliency as expressed in the RSCA. In summary, although the three RSCA global scales and their respective subscales were designed based on theory and previous research, confirmatory factor analysis provides validity evidence that the ten resiliency subscales represent three factors that are consistent with the three RSCA global scales and the constructs of resiliency that they represent. This finding supports the construct validity of the three-scale and ten-subscale structure of the RSCA thus supported the proposed framework of resiliency as multidimensional and simplified into three global factors. In addition, Prince-Embury and Courville (2008b) using confirmatory factor analysis found that the three-factor model fits for three age groups between 9 and 18. In addition, invariance analysis shows no statistical differences in factor structure between males and females.

Concurrent Validity by Factor of Personal Resiliency

As discussed above the RSCA design assumes that resiliency is multidimensional and may be simplified into three factors, each comprising interrelated constructs.

Table 3.2 Correlations of RSCA Index and global scale scores with self-concept, parent attachment, and emotional intelligence scores

RSCA Index and global scale scores	Piers-Harris self-concept total score (49)	Piers-Harris self-concept behavior adjust (49)	BYI-II self-concept (46)	BYI-II self-concept (200)[a]	IPPA mother attachment (157)[b]	IPPA father attachment (157)[b]	Emotional intelligence scale (SREIT) (157)[b]
Mastery	.60	.70	.74	.80	.48	.29	.54
Relatedness	.55	.61	.70	.70	.50	.33	.50
Emotional Reactivity	−.49	−.43	−.31	−.58	−.27	−.22	−.24
	(9–14)	(15–18)	(9–14)	(15–18)	(15–18)	(15–18)	(15–18)

All correlations were statistically significant at $p < .05$. Again divergent validity is suggested by a weaker and negative correlation with emotional reactivity (−.24)

[a]Standardization sample.

[b]Luthar Bridgeport sample

The three-factor model underlying the RSCA assumes that these dimensions are relevant across circumstances but vary in relative salience depending on the validity question being asked. Therefore, concurrent validity evidence below will be presented with respect to protective factors first; Sense of Mastery and Sense of Relatedness. Secondly validity evidence will be provided pertaining to a personal risk factor, Emotional Reactivity. The three-factor model as expressed in the RSCA assumes that personal resiliency is based in core developmental processes that exist in normative as well as populations exposed to adversity (Masten, 2001). Therefore much of the validity evidence presented below is based on the presence of protective and risk factors in normative samples, as well as in the comparison of normative and clinical samples.

Protective Factors: Self-Concept

Validity evidence for the RSCA as a reflection of protective factors may be explored in the relationship between RSCA scores and measures of self-concept. Previous theorists have suggested that resiliency is associated with positive self-concept or self-esteem (see Rutter, Luthar, and Brooks). Research by Dumont and Provost (1999) and others has previously provided support for this relationship. Prince-Embury (2007) described the relationship between the positive Self-Concept score of the Beck Youth Inventory—Second Edition (BYI-II) and the RSCA protective factor scores for children and adolescents (see Table 3.2). Significant positive correlations were found for both child and adolescent samples, between a positive BYI Self-Concept score and the Sense of Mastery Scale score (.74, .80), and the Sense of Relatedness Scale score (.70, .70), suggesting convergent validity for these scores as reflective of positive self-concept as a protective factor. At the subscale level the RSCA Self-Efficacy subscale was most significantly related to positive self-concept as assessed by the BYI-II for both children (.75) and adolescents (.77) suggesting that perceived self-efficacy is an area of overlap between a positive self-concept and personal resiliency.

These self-concept findings were supported in a separate study using the Piers-Harris Children's Self-Concept Scale, Second Edition (Piers-Harris 2; Piers, 2002) (see Table 3.2 and Prince-Embury, 2007). The RSCA Sense of Mastery and Sense of Relatedness Scale scores were positively correlated with the Piers-Harris 2 Total Score (.60 and .70) and (.55 and .61). The RSCA subscale most strongly correlated with Piers-Harris 2 Total and Domain scores was the Optimism subscale of the Sense of Mastery Scale.

In summary, examination of "self-concept" through correlations of the RSCA global scale scores with other measures suggests convergent validity with Sense of Mastery and Sense of Relatedness with slight differentiation between the two, Sense of Mastery showing a slightly higher correlation with measures of positive self-concept. The relationship between Sense of Mastery and Self-Concept appears to be slightly stronger for adolescents (.80) suggesting a slight increase in this relationship with age. Although direction of causality cannot be determined from correlations, the possibility of enhancing self-concept via increase in Sense of Mastery is suggested. Divergent validity was suggested through negative correlations of Emotional Reactivity with self-concept measures which were also smaller in strength.

Emotional Intelligence

Emotional intelligence defined as awareness of and understanding of emotions has been defined as a protective factor. Total score on the Self-Reported Emotional Intelligence (SREIT; Schutte et al., 1998) was positively correlated with the RSCA Sense of Mastery (.54) and Sense of Relatedness (.50) Scale scores, for 157 adolescents attending a charter school located in a low income area of a New England city (Luthar, 2006, unpublished study).

Protective Factor: Parent Attachment

As discussed above in the introduction section of this chapter, most formulations of resiliency include positive relationships with others as a significant protective factor. Developmental theory had identified quality of parent attachment as a major variable underlying all attachments. Construct validity of the RSCA Sense of Relatedness Scale in particular may be explored in relation to parental attachment as examined by the Inventory of Parent and Peer Attachment (IPPA; Armsten & Greenberg, 1987). One study of 157 adolescents attending high school in a low SES area of Connecticut correlated overall attachment scores for mother and father with RSCA global scale scores (Luthar, 2006) (see Table 3.2). Overall attachment score with mother was significantly and positively correlated with the RSCA Sense of Mastery Scale score (.48) and Sense of Relatedness Scale score (.50). Overall attachment with father was related to a lesser extent to the two RSCA protective scores (.29, and .33). Convergent validity evidence was provided by the positive and

Table 3.3 Correlations of RSCA global scale and Index scores with BYI-II scores of negative affect and behavior for children and adolescents

	BYI-II Anxiety (46) (9–11)	BYI-II Anxiety (200) (15–18)	BYI-II Depress (46) (9–11)	BYI-II Depress (200) (15–18)	BYI-II Anger (46) (9–11)	BYI-II Anger (200) (15–18)	BYI Disruptive Behavior (46) (9–11)	BYI Disruptive Behavior (200) (15–18)
Mastery	−.07	−.51	−.31	−.59	−.32	−.61	−.42	−.53
Relatedness	−.13	−.50	−.38	−.56	−.34	−.57	−.37	−.45
Emotional Reactivity	.43	.65	. 44	.74	.59	.76	.70	.67

significant relationships between RSCA protective scores and mother and father attachment scores. Correlations between Sense of Relatedness scores and attachment scores are not significantly higher than those between Sense of Mastery scores and attachment suggesting that parent attachment contributes to both aspects of personal resiliency. Divergent validity is suggested by the lower negative correlation between parent attachment scores and the Emotional Reactivity Scale score.

Emotional Reactivity and Measures of Negative Affect and Behavior

As stated earlier, the RSCA assumes that personal risk would be reflected by higher Emotional Reactivity Scale scores. Convergent validity for this variable may be assessed by strength of its correlation with measures of negative affect and behavior. Although causality cannot be determined through correlation, it may be inferred that higher emotional reactivity in youth may predispose them to the development of an array of negative emotions and behavior. Strong positive correlations were found between the Emotional Reactivity Scale score and all BYI-II (Beck, Beck, Jolly, & Steer, 2005) scores in non-clinical samples of children and adolescents; (.43, .65) with Anxiety, (.70, .67) with Disruptive Behavior, (.44, .74) with Depression, and (.59, .76) with Anger (see Table 3.3). These strong correlations suggest that higher Emotional Reactivity is associated with more negative affect and behavior for children and adolescents. These relationships appear to be stronger for adolescents than for children suggesting that this relationship may be developmentally cumulative.

It should also be noted that the RSCA Sense of Mastery and Sense of Relatedness scores were negatively correlated with all of the BYI-II scores of negative affect and behavior. These negative correlations are consistent with the notion that personal resources have a buffering effect against negative affect and behavior. This buffering effect is suggested more strongly for adolescents than for children again suggesting that the buffering effect of personal resiliency is developmentally cumulative (see Table 3.3). These findings suggest that interventions that aim at reducing Emotional Reactivity might be slightly more powerful as a first step in preventing negative affect.

Table 3.4 Correlations between RSCA Index and global scale scores CASS:S scores of ADHD, conduct, and cognitive problems in adolescents

	CASS:S conduct problems (89)	CASS:S cognitive problems (89)	CASS:S hyperact (89)	CASS:S ADHD Index (89)
Mastery	−.57	−.45	−.37	−.60
Relatedness	−.51	−.54	−.48	−.64
Emotional Reactivity	.59	.59	.48	.65
	(15–18)	(15–18)	(15–18)	(15–18)

All correlations significant at the $p < .05$

Table 3.5 Correlations of Reynolds Bully/Victimization Scale scores with RSCA global, Index, and subscale scores

	Male ($n = 24$)		Female ($n = 23$)		Total ($n = 47$)	
Scale/subscale/index	Bully	Victim	Bully	Victim	Bully	Victim
Sense of Mastery	−0.21	0.02	−0.77	−0.44	−0.44	−0.16
Optimism	0.08	0.01	−0.58	−0.44	−0.20	−0.16
Self-Efficacy	−0.27	0.03	−0.65	−0.33	−0.41	−0.10
Adaptability	−0.38	−0.28	−0.76	−0.45	−0.52	−0.32
Sense of Relatedness	−0.38	−0.21	−0.63	−0.61	−0.40	−0.29
Trust	−0.26	−0.29	−0.58	−0.62	−0.33	−0.34
Support	−0.09	−0.14	−0.51	−0.61	−0.21	−0.25
Comfort	−0.28	0.03	−0.66	−0.65	−0.45	−0.21
Tolerance	−0.55	−0.27	−0.49	−0.27	−0.36	−0.16
Emotional Reactivity	0.60	0.54	0.26	0.08	0.49	0.42
Sensitivity	0.64	0.50	0.02	−0.15	0.40	0.31
Recovery	0.23	0.34	0.14	−0.06	0.09	0.08
Impairment	0.53	0.48	0.34	0.21	0.51	0.44
Resource Index	−0.32	−0.10	−0.75	−0.57	−0.46	−0.24
Vulnerability Index	0.60	−0.45	0.59	0.38	0.58	0.41
Reynolds BVS						
Mean	51.17	52.21	46.00	47.48	48.64	49.89
SD	8.09	10.79	5.74	5.62	7.44	8.89

Table reprinted from RSCA Technical Manual, Prince-Embury (2007)

Similar results were found in correlational studies of the RSCA with other assessments of problem behaviors such as the Connors Adolescent Symptom Scale: Short Form (CASS; Connors, 1997) (see Prince-Embury, 2007). In a sample of 89 youth ages 15–18, conduct, cognitive, and ADHD problems as assessed by the CASS:S were associated with higher Emotional Reactivity Scale scores (.48–.65) providing additional support for the Emotional Reactivity Scale score as an indicator of personal risk. In addition, lower Sense of Mastery and Relatedness Scale scores were associated with higher CASS scores (−.37 to −.64) indicating that lower personal resiliency is associated with more behavioral difficulties (see Tables 3.4).

Personal Resiliency, Bullying, and Victimization

A study correlating RSCA scores with Bullying and Victimization Scale scores of the *Reynolds Bully Victimization Scales* (Reynolds, 2004) for 47 children ages 9–14 suggested some gender differences between the relationship of these behaviors with vulnerability and resources in children (see Table 3.5 and Prince-Embury, 2007). For boys, Vulnerability and Emotional Reactivity were significantly positively related to self-reported bullying (.60, .60) and victimization (.54, .45). Resource scores were inversely and less significantly related to bullying (−.21 to −.38) and victimization (.02 to −.21) for boys. For girls on the other hand, lower perceived personal Resources were inversely and significantly related to both bullying and victimization. The Resource Index, Sense of Mastery, and Sense of Relatedness Scale scores were negatively correlated with self-reported bullying and victimization in the following manner: (Resource Index, −.75, −.57), (Sense of Mastery, −.77, −.44), (Sense of Relatedness, −.63, −.61). Emotional Reactivity was less related to bullying and victimization for girls (.26, .08). It must be noted that these results are preliminary and should be replicated and expanded upon in larger studies of bullying and victimization. However, if replicated these results would suggest that bullying prevention programs might differ for males and females. Interventions might focus more on managing emotional reactivity for males and on enhancing sense of mastery and relatedness for females.

Personal Resiliency and Risk Behavior

A normative adolescent sample of 100 males and 100 females, ages 15–18, responded to the *Adolescent Risk Behavior Inventory* (ARBS; Prince-Embury, 2006a, 2006b, 2006c) which consists of item clusters tapping self-reported frequency of alcohol and drug abuse, sexual behavior, self-harm ideation, and sensation seeking, as well as completing the RSCA (Prince-Embury, 2006, unpublished study). The sample which comprised the normative adolescent sample for the RSCA was stratified by race/ethnicity and parent education level within gender and age (see Prince-Embury, 2007, for details of the sample). Results were the following. The Emotional Reactivity Scale was positively correlated with self-reported frequency of substance use (.51), sexual behavior (.42), self-harm ideation (.67), and sensation seeking (.33). These findings suggest that higher Emotional Reactivity is associated to higher frequency of risk behaviors in adolescents.

On the other hand, the Sense of Relatedness Scale and Sense of Mastery scores were negatively correlated with frequency of risk behaviors suggestive of a slight buffering effect. Sense of Relatedness was negatively correlated with frequency of substance use (−.40), sexual behavior (−.29), self-harm ideation and behavior (−.53), and sensation seeking (−.24). Sense of Mastery was negatively correlated with frequency of substance use (−.40), sexual behavior (−.23), self-harm ideation and behavior (−.52), and sensation seeking (−.19). Correlations above .30 were

Table 3.6 Correlations of frequency of risk behaviors and negative life outcomes with RSCA Index and global scale scores

	Substance use (200)	Sexual behavior (200)	Self-harm (200)	Sensation seeking (200)	Negative life outcomes (200)
Mastery	−.40	−.23	−.52	−.19	−.47
Relatedness	−.40	−.29	−.53	−.24	−.44
Emotional Reactivity	.51	.42	.67	.33	.49

All correlations significant at $p < .05$

significant at the $p < .001$ level and correlations above .20 were significant at the $p < .05$ level. Overall, these findings suggest that emotional reactivity is more strongly related to risk behavior than protective factors.

Personal Resiliency and Negative Life Events

At the time that the adolescent normative sample for the RSCA was collected, the author also collected data on self-reported number and type of negative events experienced by the youth (*The Negative Life Events Inventory*, Prince-Embury, 2006b). The sample of 200 was split by gender and stratified by race/ethnicity and parent education level to match the US Census. Negative Life Events were divided into negative life events (NLE) that occurred to the teen over which he or she had no control, such as death of a loved one or parental loss of job. Counted separately were negative life outcomes (NLO) over which the youth might have some control, such as dropping out of school or trouble with the law. Correlational analysis shown in Table 3.6 illustrates that the number of negative life outcomes is moderately correlated with RSCA global scale scores particularly the Emotional Reactivity Scale score (.49). Additional analyses suggested a possible gender difference. For males the Emotional Reactivity Scale score was correlated with Negative Life Outcomes (.53) more than were the Sense of Mastery Scale (−.41) or Sense of Relatedness Scale scores (−.35).

For females on the other hand, the Sense of Mastery Scale (−.52) and the Sense of Relatedness Scale (−.53) were slightly more correlated with Negative Life Outcomes in a negative direction than was the Emotional Reactivity Scale score (.46) in a positive direction. These possible gender differences are consistent with those found for the relationship between resiliency and bullying and victimization behavior.

Predictive Validity Evidence Through Criterion Group Differences

The relationship between RSCA scores and the presence or absence of clinical pathology has been supported by analyses of criterion group differences. Prince-Embury (2007) reported significant differences between mean scores of ten clinical

Table 3.7 Mean *T* scores and SD of the child depressive disorder sample and matched control group

	Clinical sample		Matched control					
Scale/subscale	Mean	SD	Mean	SD	Diff	*t*	Significance	*d*[a]
Sense of Mastery	42.2	10.8	52.1	9.3	9.90	3.51	0.0024	0.98
Optimism	6.9	3.3	10.9	2.8	4.00	4.41	0.0003	1.30
Self-Efficacy	8.7	3.6	10.3	3.0	1.60	1.70	0.1055	0.48
Adaptability	8.3	2.7	10.5	3.4	2.20	2.16	0.0435	0.71
Sense of Relatedness	37.9	11.7	52.2	9.9	14.30	4.68	0.0002	1.33
Trust	6.5	3.2	10.7	3.3	4.25	4.82	0.0001	1.29
Support	6.9	3.7	10.6	2.9	3.70	3.40	0.0030	1.13
Comfort	7.8	3.5	10.4	2.6	2.60	3.04	0.0068	0.85
Tolerance	7.3	3.4	10.5	2.7	3.25	3.61	0.0019	1.05
Emotional Reactivity	63.0	7.3	47.7	10.1	−15.30	−6.60	<0.0001	−1.74
Sensitivity	13.5	2.3	9.9	2.4	−3.65	−6.32	<0.0001	−1.55
Recovery	11.9	3.0	9.7	3.2	−2.20	−2.45	0.0239	−0.72
Impairment	13.6	2.4	9.0	3.1	−4.55	−6.86	<0.0001	−1.66
Resource Index	39.0	10.0	52.4	9.6	13.45	4.64	0.0002	1.37
Vulnerability Index	64.5	8.9	47.2	9.9	−17.35	−7.15	<0.0001	−1.84

Note. Clinical sample $n=20$; matched control $n=20$. Using the Bonferroni correction $\alpha^{PC} \geq \alpha^{PW}/k = .05/15 = .0033$, differences between groups are significant where $p \leq .0033$

[a]*d* is the difference of the two test means divided by the square root of the pooled variance computed using Cohen's (1996) Formula 10.4

groups and matched control groups for children and adolescents (Depression Disorder, Anxiety Disorder, Conduct Disorder, ADHD, Bipolar Disorder). Overall, the non-clinical groups scored significantly higher than the clinical groups on self-reported protective factors; the Resource Index score, Sense of Mastery, and Sense of Relatedness scales and subscales. On the other hand, the clinical groups scored significantly higher on the Vulnerability Index, and Emotional Reactivity scale and subscale scores. Effect sizes were large for all differences and in most cases significant. The two tables below demonstrate differences in resiliency factors between youth diagnosed with Depressive Disorder and matched control group.

Table 3.7 reports RSCA scores for a sample of 20 depressed children and a matched sample of children ages 9–14 from the normative sample. The RSCA Index scores and global scale scores for the clinical sample are significantly different from those of the matched control in the direction that would be expected. The depressed group differed from the control group most in Vulnerability (*T*65 versus *T*47), next in higher Emotional Reactivity (*T*63 versus *T*48), and then in Sense of Relatedness (*T*38 versus *T*52) and Sense of Mastery (*T*42 versus *T*52). Examination of subscale scores suggests that the clinically depressed group differs most in self-reported impairment, sensitivity, optimism, and trust. These findings are consistent with the diagnosis of Depressive Disorder.

Table 3.8 reports RSCA scores for a sample of 45 depressed adolescents and a matched sample of youth ages 15–18 from a normative sample. The RSCA Index scores and global scale scores for the clinical sample are significantly different from

Table 3.8 Mean *T* scores and SD of the adolescent depressive disorder sample and matched control group

	Clinical sample		Matched control					
Scale/subscale	Mean	SD	Mean	SD	Diff	*t*	Significance	*d*[a]
Sense of Mastery	35.4	8.2	53.2	8.5	17.82	10.82	<0.0001	2.14
Optimism	5.7	2.7	10.6	2.8	4.93	9.22	<0.0001	1.81
Self-Efficacy	6.1	2.6	11.2	2.4	5.09	9.42	<0.0001	2.00
Adaptability	6.9	2.5	10.6	2.4	3.71	8.41	<0.0001	1.53
Sense of Relatedness	35.7	10.7	51.3	7.9	15.53	8.71	<0.0001	1.66
Trust	5.7	2.9	10.4	2.5	4.71	8.98	<0.0001	1.73
Support	6.5	3.3	10.5	2.5	3.98	6.66	<0.0001	1.38
Comfort	6.6	3.3	9.8	2.7	3.24	5.31	<0.0001	1.07
Tolerance	6.7	3.3	10.6	2.4	3.89	7.15	<0.0001	1.33
Emotional Reactivity	61.6	8.6	47.7	7.2	−13.84	−7.04	<0.0001	−1.75
Sensitivity	13.0	3.3	9.5	2.3	−3.47	−5.23	<0.0001	−1.22
Recovery	12.9	3.2	10.2	2.8	−2.73	−3.88	0.0003	−0.91
Impairment	13.2	2.7	9.2	2.3	−4.00	−6.87	<0.0001	−1.62
Resource Index	34.8	9.5	52.4	8.2	17.62	10.30	<0.0001	2.00
Vulnerability Index	64.9	8.2	47.4	7.2	−17.53	−10.25	<0.0001	−2.27

Note. Clinical sample $n=45$; matched control $n=45$. Using the Bonferroni correction $\alpha^{PC} \geq \alpha^{PW}/k = .05/15 = .0033$, differences between groups are significant where $p \leq .0033$.

[a]*d* is the difference of the two test means divided by the square root of the pooled variance computed using Cohen's (1996) Formula 10.4

those of the matched control in the direction that would be expected. The depressed group differed significantly from the matched control group on all measures with large effect sizes. The biggest differences were on the Vulnerability (*T*65 versus *T*47) and Resource Index (*T*35 versus *T*52) scores, Sense of Mastery Scale (*T*35 versus *T*53), Sense of Relatedness (*T*36 versus *T*51), and Emotional Reactivity Scale score (*T*62 versus *T*48). Similar to the sample of depressed children Vulnerability and Emotional Reactivity were in the high range for the clinical group while Resource, Mastery, and Relatedness scores were in the low range. The matched control groups reported all scores within the average range.

Predicting Clinical Status

Additional analysis suggested that the RSCA Vulnerability Index score was a good predictor of clinical status in adolescents; in some cases predicting better than the presence of psychological symptoms. Discriminant function analysis (Prince-Embury, 2008) was employed to examine the relative predictive validity of the RSCA Index and Scale scores, demographic variables, and the psychological symptoms assessed by the BYI-II (Beck et al., 2005). Variables entered as independent variable included the following: (1) parent level of education, (2) gender, (3) RSCA Scale scores (Sense of Mastery, Sense of Relatedness, and Emotional Reactivity *T* scores), Index scores (Vulnerability and Resource), and the BYI-II scores for

Anxiety, Depression, Anger, and Disruptive Behavior. Groups to be discriminated were coded according to clinical status as 0 (non-clinical) or 1 (clinical). The classification sensitivity was 73 % and specificity was 81 % with the RSCA Vulnerability Index score emerging as the predictor of the most variance followed by the BYI-II Anxiety score accounting for a small part of the remaining unique variance.

In summary, validity evidence relating RSCA scores and psychological symptoms, risk behavior, and clinical pathology included the following. Significant and high correlations were found between Negative Affect and Behavior (BYI-II scores) and all of the RSCA Scale and Index scores. The strongest correlations were between the RSCA Vulnerability Index and Emotional Reactivity scores and the BYI-II scores on Depression, Anger, Disruptive Behavior, Anxiety, as well as self-reported self-harm ideation and behavior and substance abuse. Some gender differences are suggested in aspects of vulnerability/resiliency that are most salient for bully/victimization and negative life outcomes. For males higher Emotional Reactivity appears to be a salient risk factor for bullying behavior and negative life outcomes. For females higher Sense of Relatedness and Sense of Mastery appear to be more salient protective factors against bullying, victimization, and negative life outcomes.

Section III: Clinical Use of the RSCA and Three-Factor Model

Preventive Screening Using the RSCA Personal Resiliency Profile

The three-factor model of personal resiliency and its quantification and standardization using the RSCA allow for preventive screening at the aggregate and individual level. Such preventive screening is facilitated by the use of the Personal Resiliency Profile. The Personal Resiliency Profile, based on RSCA global scale scores (Sense of Mastery, Sense of Relatedness, and Emotional Reactivity), when graphed provides a visual tool for better understanding the relative strengths of multiple aspects of personal resiliency. The profile presents the three global scale scores standardized using the same T metric, which when viewed together, emphasize relative perceived resources and vulnerabilities of children and adolescents. Personal Resiliency Profiles may be examined for individuals or in aggregate. Examples of aggregated Personal Resiliency Profiles will be presented below for clinical and normative samples, along with implications for preventive screening.

Personal Resiliency Profiles: Clinical

Figure 3.1 displays aggregate Resiliency Profiles for six groups of adolescents: non-clinical, Anxiety Disorder, Depression, Conduct Disorder, Bipolar Disorder, and a group that had been in therapy previously (Prince-Embury, 2007). The Personal Resiliency Profile of the non-clinical group approximates a straight line around a *T*-score of 50 which is in the middle of the normative sample.

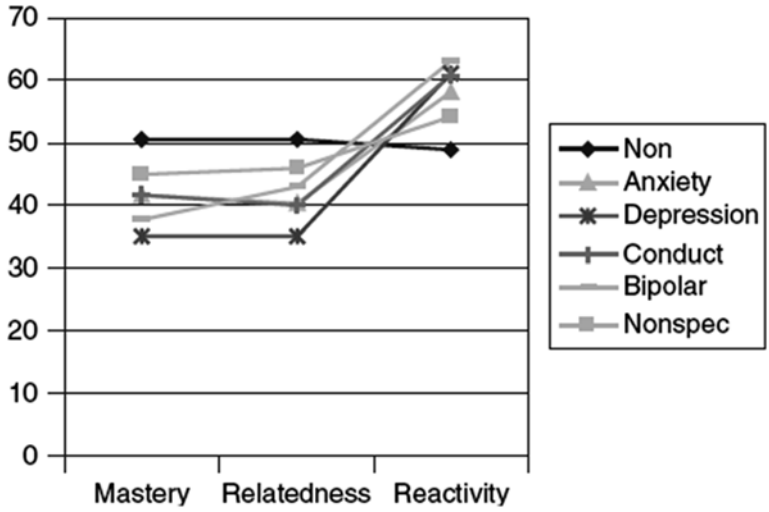

Fig. 3.1 RSCA resiliency profiles for adolescent clinical groups (Reproduced from RSCA Technical Manual, Prince-Embury, 2007)

The Resiliency Profiles of the four clinical groups vary somewhat but share these characteristics in common: high Emotional Reactivity Scale scores (above *T*55) and low Sense of Mastery and Sense of Relatedness Scale scores (below *T*45). These similarities suggest that in spite of differences in disorder, there are overarching themes of higher emotional reactivity and lower personal resources. Implication for preventive screening is that groups or individuals whose Personal Resiliency Profiles are similar to the profiles of the clinical groups might be screened for the presence or vulnerability to potential negative emotional outcomes. It must be noted that although there are differences between the profiles of the diagnostic groups, these differences have not been replicated so that these profiles cannot be used to establish clinical diagnosis (see Prince-Embury & Steer, 2010).

Personal Resiliency Profiles: Normative

Although differences in Personal Resiliency Profile may appear clearly in clinical groups one might ask whether the Personal Resiliency Profile would be useful for screening in normative samples as in universal screening. Characteristic Personal Resiliency Profiles in the RSCA normative standardization sample ages 9 through 18 (stratified by race/ethnicity and parent education level to match the US Census) were identified using cluster analysis, a statistical technique for summarizing the variability of profiles into those that most characterize the sample (Prince-Embury & Steer, 2010). This method produced three Personal Resiliency Profiles that most characterize the normative sample of children and adolescents in the United States. These profiles are displayed in Fig. 3.2. Profile A may be characterized as a high Personal Resiliency

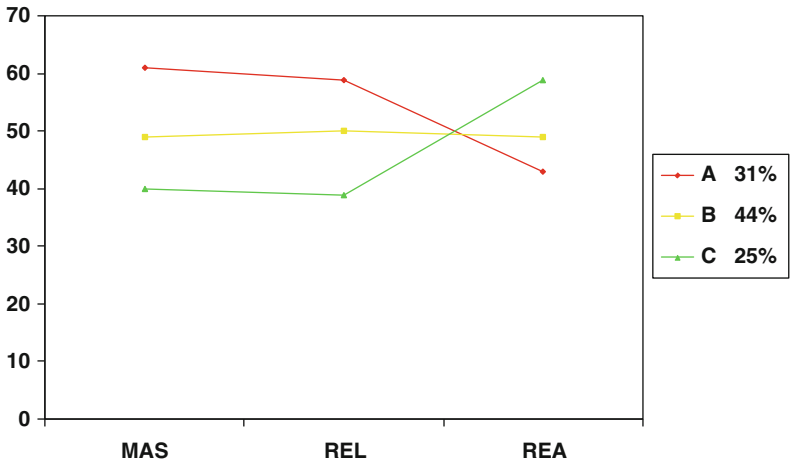

Fig. 3.2 Profiles of personal resiliency in a normative sample. $n = 641$

Profile characterized by high Sense of Mastery and Sense of Relatedness Scale scores (higher than *T*55) and a lower Emotional Reactivity Scale score (lower than *T*50). This high Personal Resiliency Profile cluster represented 31 % of the normative sample. Profile B may be characterized as sufficiently resilient, characterized by Sense of Mastery, Sense of Relatedness, and Emotional Reactivity Scale scores within the average range (between *T*45 and *T*55). Profile B represented 44 % of the normative sample. Profile C may be characterized as a Vulnerable Personal Resiliency Profile and was characterized by lower-than-average Sense of Mastery and Sense of Relatedness Scale scores (below *T*45) along with a higher-than-average Emotional Reactivity Scale score (above *T*55). Profile C represented 25 % of the normative sample. These normative resiliency profiles raise interesting issues. High resiliency group A supports the claim of Ann Masten (2001) of resiliency as "ordinary magic" which is not unusual but characteristic of many children. The existence of Profile C in the normative sample is similar to the resiliency profiles found in clinical samples (see Fig. 3.1). This similarity suggests that RSCA Personal Resiliency Profile may be used in normative samples to identify youth who may be vulnerable but who have not developed psychological symptoms or who are youth who have psychological symptoms but who have not been formally diagnosed.

Linking Resiliency Intervention to Personal Resiliency Profile

Linking resiliency intervention to the Personal Resiliency Profile may take many forms depending on whether the intervention is to be delivered in aggregate to groups or on an individual basis. On an aggregate level, youth who score high in Emotional Reactivity may receive interventions aimed at lowering reactivity,

increasing emotional regulation, and self-calming skills as discussed in "Three-Factor Model of Personal Resiliency and Related Interventions" of this chapter. Youth who score low in sense of mastery or sense of relatedness may receive interventions targeting these areas of resiliency as mentioned below.

1. Sense of mastery: increases optimism, self-efficacy, adaptability, positive expectations, problem-solving skills, executive functioning, judgment, and decision making.
2. Sense of relatedness: increases experience of support, comfort with others, sense of trust, tolerance of others, social skills, ability to listen to others, ability to maintain eye contact, ability to take the role of others, and empathy with others.
3. Emotional reactivity: lowers sensitivity, improves recovery from emotional upset, increases emotion regulation, self-soothing, self-talk, relaxation, or breathing exercises, and decreases emotion-related impairment.

Outcomes Tracking Using the RSCA

The existence of quantifiable measures of personal resiliency, such as provided by the RSCA, allows for the monitoring of outcomes targeted to specific interventions for groups and individuals. In addition, comparisons of pre- and post-scale scores on the RSCA indicate whether changes are statistically significant, clinically significant, and whether they occurred in the area of resiliency that was originally targeted. More detailed analysis may distinguish youth for which the intervention was successful from youth for which the intervention may not have been successful.

The science of targeted resiliency intervention and outcomes tracking is still in its early development. To date, generic interventions are often implemented for identified at-risk groups of individuals without attention to the specific resiliency needs of the group or the individuals in it. Then if outcomes monitoring occurs, the outcome tool is often one that is chosen based on availability as opposed to the targeted need. In addition, heterogeneity of youth in the targeted group and associated variance in the pre-intervention testing may mask any significant changes at the individual level. Below is a list of resiliency enhancement guidelines that may be considered as we work to further develop the accuracy and efficacy of the field.

Resiliency Enhancement Measurement Guidelines

1. The first step is to define specifically what is to be changed. This requires a clear definition of resilience/resiliency. In this regard a distinction between resilience and resiliency is important as resilience is defined as a complex interaction between the person and the environment and resiliency is defined as the personal characteristics of the individual. Resilience is more difficult to assess than an aspect of personal resiliency as the first requires assessment of person, environment, and interaction of the two.

2. The second step is to consider whether your definition of resiliency is one-dimensional or multidimensional.
3. The third step is to locate instruments to assess resilience/resiliency as it has been defined.
4. Is resiliency defined as a trait or relative enduring quality and if so how modifiable is this trait in individuals?
5. Is resiliency defined as learned and situation specific? If so how generalizable is this learning?
6. If looking at the statistical significance of change to document the effectiveness of an intervention, there may be some problems with doing this; small *n*, sample with too much variability in resiliency, or samples containing many youth for which resiliency is adequate to begin with so that any change would be small.

Resiliency Measurement Issues for Pre–Post-Comparison

Aggregate comparison of pre–post-measures may fall short of achieving statistical significance for a number of reasons.

1. The pre-sample may be mixed with respect to resiliency in that youth may differ in initial degrees resiliency. Change would be most likely in those who are least resilient or most vulnerable. In some cases changes for these youth should be examined separately.
2. In addition pre-intervention testing may reveal varied Personal Resiliency Profiles with some youth showing strengths in one area and other youth showing strength in other areas. Individual or idiosyncratic changes may not be detected as these may cancel each other out when considered statistically in aggregate across diverse profiles.
3. Interventions are often global and not strength specific so that impact might not be strength specific or might vary across individuals according to their strength sets. Again these diverse, individual, and sometimes slight effects might cancel each other out when considered in aggregate. Grouping youth by similarity of pre-intervention profile for comparison may increase chances of seeing patterns of change.

Given these issues below are some suggestions to maximize that potential for tapping the impact of an intervention.

1. Analyze pre-intervention sample for relative resiliency. Impact might be larger for those with lower resiliency. Compare pre- and post-intervention resilience for group by pre-intervention resiliency level.
2. Identify groups with different resiliency profiles that indicate deficits and strengths in different areas and analyze these groups separately.
3. Describe change frequency—for total sample, for those who were most vulnerable pre- and post-intervention.
4. Describe areas of most change and for whom.
5. Were there areas of negative change and were these statistically significant?

6. How did actual change compare with the intended change goals for the intervention?
7. Identify individuals for whom there was the most significant change and interview them on the nature of the change for them.
8. If the intervention was very helpful for a few individuals this is important even if a statistically significant effect for the entire group was not achieved.

Summary

In summary this chapter presents a model of personal resiliency that is simplified to three factors based in three core developmental constructs of personal resiliency, Sense of Mastery, Sense of Relatedness, and Emotional Reactivity. The three-factor model of personal resiliency is presented as a simplification of a complex body of theory and research related to resilience/resiliency for the purpose of facilitating the development of targeted interventions to enhance personal resiliency. Specific areas of intervention are described and matched to the three core factors of personal resiliency. The three-factor model does not presume to include all aspects of resilience and specifically does not include environmental factors, intellectual ability, or actual achievement.

Also described is a user friendly assessment tool designed to translate the three-factor model of personal resiliency for use with children and adolescents 9–18. Three global scales are designed to reflect three developmental systems that have been consistently identified as core aspects of personal resiliency, Sense of Mastery, Sense of Relatedness, and Emotional Reactivity. Research suggests that these three scales reflect the underlying constructs in a reliable and valid manner. Unique characteristics of the RSCA are the following. The RSCA describes three core developmental systems underlying resiliency that are well documented in the literature and consistent with factor analytic studies (Prince-Embury, 2007). The RSCA was normed on a US representative sample systematically stratified by race/ethnicity and parent education level allowing *T* scores to be determined based on a representative normative sample that is represented in the US Census.

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Chapter 4
Creating Resilient Mindsets in Children and Adolescents: A Strength-Based Approach for Clinical and Nonclinical Populations

Robert Brooks and Suzanne Brooks

During the past 25 years, there has been a burgeoning interest in the study of resilience in children and adolescents (Beardslee & Podorefsky, 1988; Brooks, 2011; Brooks & Goldstein, 2001, 2007, 2011; Crenshaw, 2010; Goldstein & Brooks, 2007; Goldstein, Brooks, & DeVries, 2013; Prince-Embury & Saklofske, 2013; Werner & Smith, 2001). As described by Masten (Masten, 2001; Wright, Masten, & Narayan, 2013), there have been four different phases or "waves" in examining resilience.

Initially, the focus was on understanding those factors within individuals who had encountered and coped successfully with significant adversity in their lives. A second wave examined developmental processes that contributed to resilience and paralleled the emergence of the field of *developmental psychopathology*. This phase is represented by a greater focus on contextual and developmental variables and not simply on factors residing within the individual.

Masten termed the third wave "intervening to foster resilience," which encompassed both intervention and prevention approaches. Wright et al. (2013) noted, "Using lessons from the first two waves, investigators of the third wave began to translate the basic science of resilience that was emerging into actions intended to promote resilience" (p. 27). The current fourth wave is focused on "multilevel dynamics and the many processes linking genes, neurobiological adaptation, brain development, behavior, and context at multiple levels" (p. 30). It involves the study of resilience from many vantage points, including genes, gene–environment interaction, and social interaction.

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This chapter will include content that is most identifiable with the third wave with an emphasis on both intervention and prevention, but we recognize that the fourth wave embraces an exciting multidisciplinary, multilevel approach that will provide increased information about the forces that contribute to resilience in children and adolescents. Our goal is to outline a framework with specific strategies that can be applied not only to intervene when youth are already experiencing adversity, but also in a preventative way so as to equip all youth with skills necessary to manage future problems they may encounter. We will examine the importance of a strength-based approach with both clinical and nonclinical populations. In setting the stage for this discussion, we will review the key concepts that serve as a foundation for our viewpoint.

Invulnerable Children?

Some of the earliest writings about resilience focused on studying those children who had experienced significant adversity in their childhood (e.g., physical or sexual abuse; being parented by an adult with an emotional disorder) but as adults were faring well in both their personal and work lives. These youngsters were frequently given the label "invulnerable" (Anthony & Cohler, 1987), which could be interpreted to imply that they were "superboys" or "supergirls" who possessed unusual inborn powers that allowed them to overcome the hardships they encountered. Conversely, to apply this label to a small, selected group of children could lead to the incorrect conclusion that the vast majority of children who were not born with these super-like powers would be incapable of overcoming childhood hardship and trauma.

Masten (2001), in an often-quoted article, eloquently challenged the notion of extraordinary powers involved in resilience. She stated:

> Resilience does not come from rare and special qualities, but from the everyday magic of ordinary, normative human resources in the minds, brains, and bodies of children, in their families, and in their communities. … The conclusion that resilience emerges from ordinary processes offers a far more optimistic outlook for action than the idea that rare and extraordinary processes are involved. The task before us now is to delineate how adaptive systems develop, how they operate under diverse conditions, how they work for or against success for a given child in his or her environmental and developmental context, and how they can be protected, restored, facilitated, and nurtured in the lives of children. (p. 235)

Masten's view, to which we enthusiastically subscribe, offers a more hopeful perspective that questions the assumption that only a small number of children possess certain extraordinary attributes necessary to master adversity.

Bonanno (2004) has arrived at a similar conclusion as Masten, primarily from his study of adults who have experienced trauma and loss. He observed:

> A review of the available literature on loss and violent or life-threatening events clearly indicates that the vast majority of individuals exposed to such events do not exhibit chronic symptom profiles and that many and, in some cases, the majority show the type of healthy functioning suggestive of the resilience trajectory. (p. 22)

In his thought-provoking book *The Other Side of Sadness* (2009), Bonanno offered this opinion:

> What is perhaps most intriguing about resilience is not how prevalent it is; rather it is that we are consistently surprised by it. I have to admit that sometimes even I am amazed by how resilient humans are, and I have been working with loss and trauma survivors for years. (p. 47)

Masten and Bonanno's conclusions are not meant to suggest that differences do not exist in the ways in which children or adults cope with adversity. Rather, their view supports the belief that all individuals and not just a small few possess the capacity to become increasingly resilient. Such a belief offers as Masten noted, an "optimistic outlook." It also serves as a challenge to identify those actions that adults must initiate to bring this ordinary magic to fruition in all youngsters.

Resilience Applied to All Individuals: A Belief in Intervention and Prevention

A number of years ago, the first author was invited by a group of parents to give an evening talk about "Raising Resilient Children and Adolescents." A few days prior to the presentation, a woman contacted him and questioned whether his talk would be relevant for her.

She said, "I have three children, ages 8, 11, and 13. They are doing very well in all areas of their lives. Fortunately, they have not faced really difficult situations like some kids do. They do well in school, enjoy sports, and have a number of friends. My husband and I have provided a very loving home. Thus, I'm not certain if a discussion about resilience or what I guess is bouncing back from hardship would pertain to my kids or our family situation."

This mother's question reflected a common and often accepted view of resilience, namely, that the term should be applied only to those individuals who have overcome hardship to lead more satisfying lives—lives that have not been noticeably derailed by major risk factors in their childhood histories. Certainly this view is valid and has prompted much of the research found in the resilience literature. However, as we will detail below, we believe the concept of resilience deserves to be broadened.

The first author's response to this mother captured a shift that had occurred in his thinking that was to become the basis for the ideas he and his colleague Sam Goldstein have advanced in their work and writings about resilience (Brooks & Goldstein, 2001, 2004, 2007). The presenter told her that while it is true that research about resilience was rooted in the study of children who had effectively dealt with significant challenges, the way in which he visualized the concept of resilience was that it should be expanded to apply to every child and adolescent and not restricted to those who have experienced hardship. He noted that all youngsters are likely to face stresses at different points in their lives and even those who at one point would not be classified as "at-risk" might suddenly find themselves in that category.

This woman and her husband after his presentation informed the first author that the points he offered were indeed relevant for the ways in which they parented their three children.

The wealth of information collected from examining the lives of youngsters who have successfully managed hardships should certainly be applied by parents, teachers, mental health, and other childcare professionals to design and implement interventions for fostering hope and resilience in children with problematic histories. However, Brooks and Goldstein (2001, 2007) proposed that this same information was equally relevant in directing our interactions with all children. The adoption of a more inclusive definition of resilience encourages the emergence of a proactive, preventative approach.

Other mental health specialists have also expanded the definition or scope of resilience to go beyond bouncing back from adversity. Reivich and Shatte (2002) contend that "everyone needs resilience," by which they explained:

> …resilience is the capacity to respond in healthy and productive ways when faced with adversity and trauma; it is essential for managing the daily stress of life. But we have come to realize that the same skills of resilience are important to broadening and enriching one's life as they are to recovering from setbacks. (p. 20)

In defining the characteristics of resilience, Brooks and Goldstein (2001) included: the capacity to deal effectively with stress and pressure, to cope with everyday challenges, to rebound from disappointments, mistakes, trauma, and adversity, to develop clear and realistic goals, to solve problems, to interact comfortably with others, and to treat oneself and others with respect and dignity. A guiding principle in each interaction that adults have with children, whether in homes or schools or the office of a therapist, should be to strengthen these attributes, which we subsume under the concept of *resilient mindsets*. We now turn to the topic of *mindsets*.

The Power of Mindsets

The concept of mindsets has become an increasingly prominent area of study, especially with the emergence of the field of "positive psychology." As examples, Dweck authored a book titled *Mindset* (2006) in which she distinguished between a "fixed" and "growth" outlook; the research of Seligman and his colleagues about "learned helplessness" and "learned optimism" as well as resilience (Reivich & Shatte, 2002; Seligman, 1990, 1995) have underpinnings in attribution theory, which is basically about mindsets, examining how we understand the reasons for our successes and mistakes (Weiner, 1974).

Brooks and Goldstein (2001) noted that resilient children possess certain qualities and/or ways of viewing themselves and the world that are not apparent in youngsters who have not been successful in meeting challenges. The assumptions that children have about themselves and others influence the behaviors and skills they develop. In turn, these behaviors and skills influence the set of assumptions so that a dynamic process is constantly operating. This set of assumptions may be classified as a *mindset*.

Identifying the components of a resilient mindset, which are described in greater detail below, provides invaluable guideposts for parents as they interact with their children. Knowledge and application of these components are essential for teachers and therapists as well. Adults who adhere to these guideposts have a compass by which to reinforce resilience in children. While the outcome of a specific situation may be important, even more vital are the lessons learned from the process of dealing with each issue or problem. The knowledge gained in the process provides the nutrients from which the seeds of resiliency will flourish (Goldstein et al., 2013).

In discussing the concept of mindsets it is important to keep in mind that not only do we possess assumptions about ourselves, but whether we realize it or not, we are constantly making assumptions about the behavior of others. These assumptions, even if unstated, have a significant impact in determining effective parenting, teaching, and therapeutic practices, the quality of relationships with children, and the positive or negative climate that is created in home, school, and other environments.

Punishing a Suffering Child

As one example of the impact of mindsets, Janet Norton, a single parent of 5-year-old Amanda, contacted the first author for therapy, and said during this initial phone call, "I'm desperate." She described how prior to becoming a parent she told herself that she would never resort to spanking. Yet, she was currently spanking Amanda several times a day, asserting, "It's the only way she'll listen to me and even that doesn't last too long."

In her first appointment Janet described Amanda as a very challenging child to satisfy even from birth, one who often had tantrums, especially when she did not get what she wanted. "Everything is a struggle with Amanda. Nothing pleases her. Things would be so much easier if only she would cooperate more with what I ask her to do. I don't think I'm asking too much of her."

In listening to Janet's description of Amanda and guided by an appreciation of the influence that mindsets have on our reactions to different people and situations, the first author asked, "How do you understand Amanda's behavior or why she acts the way she does?"

Janet hesitated and then replied, "I would tell you, but I think you would think I was crazy."

"Crazy for telling me how you understand Amanda's behavior?"

"Yes."

Again, directed by the ways in which mindsets influence our behaviors, the first author inquired, "Do you know why I asked about how you understood Amanda's behavior?" (We will often pose this kind of question with patients, both as a way of beginning a discussion about mindsets as well as developing a collaborative relationship in which ideas and comments are shared and understood.)

Janet thought for a moment and answered, "I'm not certain."

The first author responded, "In my experience how we understand or interpret someone else's behavior, what I often refer to as our mindset, will determine how we respond to that person."

"That certainly makes sense, but what I'm going to say may still seem crazy. Sometimes I feel that Amanda has a *personal vendetta* against me, that it's like she's always thinking of ways to upset me."

The first author's initial response was to tell Janet that he knew it took a great deal of courage for her to share this view with him—the moment he used the word *courage* Janet seemed to become more relaxed—and while a *personal vendetta* might be one explanation, there might be other explanations as well. (Aware of Janet's anxiety that the first author would indeed experience her *personal vendetta* interpretation as a sign of her being crazy, he was careful not to judge this explanation but rather to offer another possibility.)

Janet was eager to hear the first author's alternative explanation, which involved a discussion of the different temperaments with which children are born. He cited the seminal work of Chess and Thomas (1996). He said that while some children are born with what researchers have labeled *easy* temperaments, others possess temperaments that are seen as *difficult*. Bob told Janet that from her description, Amanda met many of the criteria for this latter label.

As the discussion continued, Janet wondered that if a child like Amanda is born with a difficult temperament, would she always be difficult even into her teen and adult years. Bob offered realistic reassurance by noting that once adults are aware that a child has certain challenging temperamental qualities, there are techniques they can use to lessen these negative qualities.

Janet then plaintively said, "So I guess that many of the things I've spanked her about were really things she did not have control over."

"Yes, but that doesn't mean we can't help her to gain more control and be more cooperative now without having to spank her."

Janet teared up and offered a very poignant comment, "As I think of all we've talked about, all I can think about is that I've been *punishing a suffering child*."

Bob empathized with Janet and added, "But that's before you really knew about temperament or different strategies to deal with children who are more difficult to parent. We can begin to consider other strategies for interacting with Amanda that do not involve spanking."

Janet was very motivated to learn these other strategies. As she did, her confidence as a parent increased and her relationship with Amanda improved noticeably. She no longer spanked her daughter, observing, "Why would anyone want to spank a suffering child?"

The shift in mindset from a *personal vendetta* to a *suffering child* prompted an entirely different parental approach, which would not have been possible without this change in perspective. In turn, the shift in mindset was reinforced with the positive changes that occurred in Amanda's behavior. Janet developed a more easy-going, satisfying relationship with her daughter and Amanda responded in kind.

It Seems Like He Wants to Disrupt the Class

Both authors of this chapter have collaborated closely with educators. The second author meets regularly with teachers in her position as a school psychologist in a district outside Boston as well as in her private practice. Not surprisingly, educators bring assumptions about student behavior into all of their interactions with those in their classrooms and schools. Similar to parents and other caregivers, the more aware they are of these assumptions, the more they can modify those beliefs that may work against the creation of a positive classroom environment (Brooks, Brooks, & Goldstein, 2012).

Even those assumptions about which we may not be cognizant have a way of being expressed and understood by students. In her role as a therapist, the second author consulted with a teacher about Jonathan, an 8-year-old private patient who had learning and attention problems. The child constantly asked questions in class, which triggered the teacher's annoyance and frustration. In discussing Jonathan with the second author, the teacher became aware that her annoyance was rooted, in part, in her assumption that his constant asking of questions was an intentional ploy to distract her and the class.

In her consultation, the second author reframed the purpose of Jonathan's questions, using information from the evaluation she had conducted, including test data as well as parent and teacher observations. She highlighted both his anxiety as he attempted to understand the material as well as his impulsivity, which contributed to his constant questions.

The teacher displayed refreshing openness in changing her assumptions about Jonathan's behavior, which paved the way for a shift in her approach. Knowing that the presentation of new material was especially problematic and anxiety-provoking for Jonathan, she asked her student teacher to prepare him in advance for this material. She also established a "question time" in which she or the student teacher would put aside a few minutes each hour to listen to and answer Jonathan's questions, a practice that actually decreased the amount of time she had to spend with him. Jonathan felt less anxious knowing that he had this "question time" available, which allowed him to hold off from asking constant questions in class. Another strategy was having Jonathan write down pressing questions to be reviewed at "question time," a technique that addressed his impulsivity.

Most telling was when Jonathan informed his parents that he thought his teacher really liked him. In fact, his assessment was accurate given her change in mindset and the accompanying implementation of effective strategies.

The Characteristics of a *Resilient Mindset*

Given the power of mindsets in determining our behavior, we propose that a major goal for psychotherapists is to reinforce a mindset in patients that is associated with hope and resilience. This goal will be facilitated if therapists are able to identify the

attributes of what Brooks and Goldstein (2001) have labeled a *resilient mindset* and nurture these attributes both in the therapy session and in consultation with significant adults in the youth's life. As we emphasized earlier, the same strategies to help at-risk youngsters to become increasingly resilient can be used with children who do not display developmental issues. They are applicable to both clinical and non-clinical populations.

A mother at a presentation that the first author gave for parents of children with special needs summed up this point very succinctly with the following comment:

"As you were talking I realized that all of the resilience strategies you described that would be helpful for my child with special needs are just as applicable for my two children who do not have special needs. Parents would want all of their children to have a resilient mindset."

The first author wholeheartedly agreed with this mother's observation.

It is our position that understanding the features of a resilient mindset provides parents, therapists, educators, and other professionals specific guideposts to help children manage challenges effectively and to develop those characteristics associated with this mindset.

The mindset of resilient children comprises a number of noteworthy feelings and beliefs that are associated with specific skills. Resilient children:

- Feel loved and accepted
- Have learned to set realistic goals and expectations and goals for themselves
- Are able to define the aspects of their lives over which they have control and to focus their energy and attention on those, rather than on factors over which they have little, if any, influence
- Believe that they have the ability to solve problems and make good decisions
- Take realistic credit for their successes and achievements but acknowledge the input and support of adults for these successes
- View mistakes, setbacks, and obstacles as challenges to confront and master rather than stressors to avoid
- Recognize and accept their vulnerabilities and weaknesses, seeing these as areas for improvement, rather than unchangeable flaws
- Recognize, enjoy, and use their strengths or what we call their "islands of competence"
- Feel comfortable with and relate well to both peers and adults
- Believe that they make a positive difference in the lives of others

To Serve as a "Charismatic Adult"

The key to being an effective therapist or parent or teacher is to view each interaction with a child as an opportunity to reinforce one or more of these characteristics. As noted above, these characteristics serve as guideposts in our day-to-day relationship with children. If we are to use these guideposts consistently and successfully, if we are to lessen our own disappointment, frustration, and possible burnout in our

professional or parenting roles, we must keep in mind a basic finding in resilience research, namely, that resilience is rooted in great part in the relationship that children experience with caring adults (Brooks & Goldstein, 2001, 2004). The late psychologist Julius Segal, whose work focused on factors that assisted children to master challenges, eloquently noted (1988):

> From studies conducted around the world, researchers have distilled a number of factors that enable such children of misfortune to beat the heavy odds against them. One factor turns out to be the presence in their lives of a *charismatic adult*—a person with whom they can identify and from whom they gather strength. (p. 3)

The first author found Segal's notion of a *charismatic adult* thought-provoking. It immediately prompted him to ask the following questions in therapy sessions with parents or in consultations with teachers:

"When I put my children to bed at night, do I consider this question, 'Is my son or daughter a stronger person because of things I've said or done today or are they less strong? Have they gathered strength from me?'"

"At the end of the school day, do I as a teacher ask this question, 'Are all of the students in my classroom stronger because of things I've said or done today or are they less strong? Have they gathered strength from me?'"

The first author also asked himself as well as therapists he supervised questions similar to those for parents and educators, namely:

"At the end of each therapy session, is my patient stronger because of things I've said or done or is my patient less strong and hopeful? Has my patient gathered strength from me?"

These are not easy questions to answer, especially since the concept and measurement of strength are far from precise. However, when parents, educators, and therapists are informed about the notion of a *charismatic adult*, and posed the questions listed above, the response has been noteworthy. In response to such questions, parents, teachers, or therapists often report that they want to be that kind of figure in the lives of their children or students or patients. It is not unusual for them to say, "I want to be a charismatic adult. What do I say and do?"

The answer is found in identifying and applying those strategies that reinforce the attributes of a resilient mindset.

Strategies for Nurturing a Resilient Mindset

We have chosen several of the main attributes of a resilient mindset to highlight in the remainder of this chapter. We will describe how they can be nurtured by therapists, educators, and/or parents. This task will be facilitated if all of these adults work in concert with each other.

To believe that adults can be supportive and helpful. The relationship we develop with children is of paramount importance in helping them feel safe, secure, accepted, and loved so that they may become resilient. This statement may appear so obvious

that some may question its inclusion. However, our purpose in listing this point is so we might consider different ways in which to help children feel safe and accepted whether at home, or school, or in a therapist's office.

A major skill in fostering these positive feelings in children is for the adults in their lives to truly practice being *empathic*, always attempting to see the world through the child's eyes. In our work with parents and educators, we pose certain questions that bring focus to the question of empathy. We have received feedback that these questions elicited much self-reflection, especially in terms of one's interactions with children. The questions include:

"How would I feel if someone said or did to me what I just said or did to my child (student, patient)?"

"When I say or do things with my children (students, patients), am I doing so in a way that will help them realize I love and care about them so that they will be most responsive to listening to me?"

"How would I hope my children (students, patients) described me?"

"What have I done on a regular basis so that my children are likely to describe me in the ways I hope they would?" (This particular question encourages adults to consider a specific plan of action that they can take to enrich their relationship with children they are raising or with whom they are working.)

"How would my child (student, patient) actually describe me and how close is that to how I hope they would describe me?"

"If there is a discrepancy between the hoped for and actual descriptions, what steps must I take to lessen that discrepancy?" (Another question to prompt a plan of action.)

An example of the use of these questions to help parents become more empathic and charismatic adults in the life of their child took place with Sally, a shy, 8-year-old who was frequently reminded by her parents Sue and Alan Carter, to say hello to people. The first question that greeted Sally after school was, "Did you speak with anyone in school today? If you don't make the effort, you're not going to have any friends." These kinds of comments backfired, prompting Sally to become increasingly anxious.

The Carters, worried about Sally and desiring her to be more outgoing, failed to appreciate that Sally's cautious demeanor was an inborn temperamental trait that could not be overcome by exhorting her to say hello to others or make friends. Each reminder on their part intensified Sally's discomfort and compromised the development of a warm, supportive relationship with her.

Parent counseling focused on changing their mindset about Sally so that she would experience her parents as supportive rather than critical. They were asked to consider how their current actions and words impacted on their daughter. If they were shy, how would they feel if someone said to them, "You have to make an effort to speak with other kids or you won't have friends?" These questions helped Sue and Alan develop a more empathic stance towards Sally.

They asked how they might approach Sally and if they should avoid saying anything at all about her shy behavior. They were encouraged not to avoid the subject, but rather to help Sally by expressing empathy and by having her feel they were on her side and not judging her. In parent counseling they learned to say to Sally that

they knew it was not easy for her to say hello to people she didn't know, adding it was not easy for other children as well. Such a statement, expressed in a genuine fashion, conveyed empathy and also, helped to normalize the problem she faced. Normalizing a problem permits children as well as adults to feel that they are not alone—a very reassuring feeling.

Sue and Alan then created a problem-solving atmosphere, which as we will highlight below is a major component of resilience. They suggested to Sally that perhaps the three of them working together could figure out small steps that she could begin to take to make it less difficult for her to greet others. They also offered realistic hope by asserting, "Many kids who have trouble saying hello when they're young, find it easier as they get older."

These changes contributed to a more positive relation between Sally and her parents and served as a catalyst for Sally to take the "small steps" Sue and Alan had suggested. Sally's belief that her parents were supporting rather than judging her was a significant change in her mindset that allowed her to venture forth more confidently in her daily interactions with others.

In therapy, there are comments that clinicians can offer that highlight their wish to be empathic and to understand the perspective of their patients. These comments, timed for the appropriate moments, frequently serve to lessen defensiveness and enrich the alliance between the therapist and the patient. They include:

"If you ever feel I'm not understanding something you're trying to tell me, please let me know."

"If you ever feel I'm being critical of you or judging you, please let me know since that would never be my intention." (We have found this comment to be very powerful with children as well as their parents who are quick to feel that they are being judged.)

"If I ever ask you a question and you're not certain why, don't hesitate to ask me why I'm asking the question."

These and similar statements should not be seen as rigid scripts to be applied indiscriminately but rather as a genuine reflection of the therapist's wish to develop a warm, caring, and empathic relationship with children and their families.

In the home environment there are numerous ways of helping our children to feel secure, loved, and accepted whether they display developmental, behavioral, or emotional problems or not. As we have seen with Janet Norton or Sue and Alan Carter, being an empathic, nonjudgmental parent is a critical attribute for developing a positive relationship with one's children.

In addition, in our parenting workshops we extol the importance of setting aside regular "special times" with our children that often involve a time alone with each child. Parents with young children have been advised to say to them, "When I read (or whatever activity is involved) to you, even if the phone rings, I'm not going to get it since this is our special time together."

A 6-year-old boy said with excitement and joy, "I know my parents love me." When asked how he knew this, he responded, "When they read to me and the phone rings, they let the answering machine answer it." Parents should think about this boy's comments when involved with their children and put aside cell phones or any similar devices that distract our full attention from our children.

To appreciate that we have more control over our reactions to events than we may realize. Developing a sense of "personal control" in children is an essential feature of resilience. In identifying *personal control* as a key ingredient of a resilient mindset, Brooks and Goldstein (2004) offered the following description of this concept:

> Taking ownership of our behavior and becoming more resilient requires us to recognize that we are the authors of our lives. We must not seek our happiness by asking someone else to change, but instead always ask, *What is it that I can do differently to change the situation*? Assuming personal control and responsibility is a fundamental underpinning of a resilient mindset, one that affects all other features of this mindset. (p. 7)

While this statement focused primarily on resilience in adults, it is equally relevant for our interventions with children. As therapists, we should be sensitive to understanding whether children and/or their families are burdened by a victim's mentality. Such a mentality is dominated by thoughts and feelings associated with a sense of helplessness and hopelessness. Or, do they entertain the notion that while negative events have transpired in their lives over which they have little, if any, control, what they do have control over is their attitude towards and reaction to the events?

Seth, a 9-year-old boy with a diagnosis of ADHD, was not only struggling in school but with the recent divorce of his parents. In one session, frustrated and angry, he asked, "Why did God choose me to be the one with ADHD?"

It is not unusual for children or adults faced with adversity to ask, "Why me?" or "Why my child?" The problem occurs when the "Why?" question continues to dominate one's thinking year after year. Eventually, feelings of helplessness and a victim's mentality may become the prominent features of a person's mindset. Gerber, Ginsberg, and Reiff (1992) in studying adults with learning disabilities found that those who were more successful in different arenas of their lives had adopted the outlook, "I had no control over being born with learning problems, but I do have control in terms of how effectively I cope with those problems." The less successful adults kept asking, "Why did I have to be born with learning disabilities?"

So how might a therapist respond to Sean's question, "Why did God choose me to be the one with ADHD?" When asked what he thought, Sean could offer no explanation. Gerber et al.'s (1992) findings offer direction. A resilience-based response might include the following: "We're not sure why some kids have ADHD and some don't, but the good news is that now that we know you have ADHD, there are things that can be done to help kids like yourself and others with ADHD to have more success."

It is important for the therapist to understand both a child and a parent's notion of personal control. This understanding may be facilitated using a mindset model that was mentioned earlier in this chapter, namely, attribution theory (Weiner, 1974). Children who struggle with self-esteem and are not very hopeful or resilient believe that any success that comes their way is based on luck or chance or fate. They attribute success to factors that are outside their control, which lessens the probability of future accomplishment. In contrast, youngsters with a more positive outlook will give the adults in their lives credit for their assistance, but they basically believe—and not in an narcissistic way—that their success is predicated in great part on their own effort and resources.

An understanding of a child's beliefs about personal control can begin during the assessment phase. Samantha, a 12-year-old girl was referred to the first author for therapy, due to her feelings of sadness and loneliness coupled with low self-esteem and learning problems in school. During the first interview she immediately described her distress and obvious sense of hopelessness and helplessness. "I'm not very popular, I have trouble in school, and I'm terrible at sports. That's why I stay in my room a lot."

In response to the first author's questions, Samantha acknowledged that she wished things were different. The first author then inquired what would she like to change.

Samantha readily responded, "I wish I was as pretty as the other girls and that I was popular and could play sports and get good grades in school."

As the discussion continued, the first author asked if there was ever a time that Samantha felt more successful. Her reply could have been taken directly from a book illustrating the tenets of attribution theory. Samantha talked about a time another girl complimented her, but she dismissed this gesture by contending, "She felt sorry for me." She also minimized a good grade she received on an English paper with the comment, "I think the teacher was just trying to be nice."

Therapy with Samantha focused on changing these self-defeating attributions or assumptions. The first author, as he frequently does with children and adolescents, explained in language that Samantha could understand, the concept of mindsets and their impact on her behavior. A therapeutic goal was to modify Samantha's mindset by incorporating a more hopeful outlook. As this goal was being realized, Samantha attempted new scripts (Brooks & Goldstein, 2001, 2004) that led to positive outcomes. She "rehearsed" in therapy different ways of approaching a couple of girls with interests similar to her own. She also received assistance from a tutor, especially about preparing for tests, which led to improved grades. In place of sports, she cultivated an interest in painting and enrolled in an art class in a museum.

With each positive result, the first author was very active in asking, "Why do you think that what you did was successful?" Samantha understood why he was asking and soon in a playful manner would say, "I know what you're going to ask."

"You do?"

"You were going to ask why I thought I was successful?"

With humor the first author replied, "Wow! I must be really predictable. But let me ask, 'Why do you think you were successful?'"

While the use of humor was involved in this dialogue, an important shift in her outlook occurred when Samantha could acknowledge that her success was based not only on the help of others but, as importantly, on her own effort.

This shift in mindset towards a sense of "personal control," is one that all therapists should assist their patients to adopt. The second author regularly reinforces a feeling of personal control in her therapy sessions with children who are experiencing difficulties in school. Anna, an 8-year-old, was beset with social anxiety. Although she was willing to talk with Suzanne about her interests, she became paralyzed when the discussion turned to peer relationships and school. Her teacher reported that Anna hesitated to join groups of two or more children, particularly on the school playground. As long as Anna continued to feel paralyzed in confronting

her problems, it would be almost impossible for her to develop a sense of personal control and become resilient.

In this situation, the second author utilized an effective technique well-known to therapists, especially those who work with children. She relied on "displacement" so that Anna would not immediately feel threatened. The therapist informed Anna that she knew a little boy who was having a problem talking with friends and was not certain the best way to help him. Anna, similar to many other children moved into this displacement with ease, asking, "Does he have a hard time on the playground?" The therapist replied, "Yes, the playground is where he has most trouble."

Even if Anna had not directly referred to the playground, the second author could have introduced that specific area within the displacement. It was obvious that Anna was ready to discuss her problems as long as the right venue was found. She asked, "Is he scared to talk with other children?" Eventually, Anna observed, "I think he might be worried they will make fun of him."

Once this worry was verbalized, the second author engaged Anna in considering strategies for helping this boy, which, of course, were the same strategies that Anna could implement to deal with her own problems. In essence, Anna no longer felt paralyzed. Rather, in assuming a position of expertise, she felt increasingly in control. Also, the second author's strategy touched on two other components of a resilient mindset that we will discuss below, namely, to believe we can solve problems and to believe we make a positive difference in the lives of others.

The first author has found that children often produce images and metaphors in the initial sessions of therapy that afford the therapist an opportunity to begin to reinforce a message of control and resilience (Brooks, 1981, 1985). This was evident with Meredith, a 6-year-old girl referred because of oppositional behavior and frequent temper tantrums. During the initial session she spontaneously informed the first author that she liked grasshoppers, adding, "You have to treat them nicely and not press on them too hard or they won't feel like jumping."

Similar to introducing a form of displacement, one could interpret Meredith's "warning" in the image of a grasshopper as a way of attempting to determine how the first author would treat her and how his behavior would determine her response. Accordingly, the first author replied in the following manner (we are offering the interaction in dialogue form to describe the reasoning behind the first author's questions—questions aimed at establishing a beginning foundation for reinforcing a resilient mindset).

Dr. B: Do grasshoppers want to learn to jump? (to assess Meredith's wish to learn and grow).
M: Yes.
Dr. B: Do they need help in learning to jump? (to assess whether she feels others can be helpful).
M: Yes.
Dr. B: Who can help them?
M: The trainer (an apparent therapist figure).

Dr. B: How does the trainer do that?
M: He pushes them.
Dr. B: Does he ever push them too hard? (this was based on Meredith's initial comment).
M: Sometimes.
Dr. B: Why? (to determine whether she experienced the pushing too hard as an intentional and/or angry act).
M: I don't know.
Dr. B: Do you think the trainer wants to push down too hard on the grasshopper?
M: Some trainers might, some trainers are mean ("mean" was a word that Meredith used to describe her teacher, a woman who Meredith did not like).
Dr. B: How come?
M: I'm not sure.
Dr. B: Gee, you really know a lot about grasshoppers so I'm wondering how would a grasshopper let her trainer know if the trainer was pushing too hard? (to introduce the idea that Meredith could assume some responsibility and ownership for offering feedback—a vital ingredient in personal control).
M: The grasshopper just wouldn't jump (an oppositional way of coping).
Dr. B: Anything else?
M: The grasshopper could jump in the wrong direction (another oppositional way of coping).
Dr. B: Would the trainer know why the grasshopper wasn't jumping or was jumping in the wrong direction? (similar to a previous comment, the therapist wanted to reinforce Meredith's responsibility for what transpired in therapy and to encourage her to communicate her feelings).
M: No.
Dr. B: Hmm. That's a problem. If a trainer really wanted to help and was pushing too hard but didn't know it, he couldn't be helpful and the grasshopper couldn't learn (in part, this comment was an attempt to highlight the self-defeating nature of the grasshopper's coping strategies and to communicate that the trainer could be of help if Meredith provided feedback).
M: Yeah.
Dr. B: That's a problem that needs solving (the importance of problem-solving, which will be addressed in the next section, is an important message to communicate).
M: Yeah.

Given Meredith's interest in this dialogue, the first author introduced the idea of making up a story about a grasshopper who came to a trainer to learn to jump far and straight. This strategy was predicated on the Creative Characters technique (Brooks, 1981). In the subsequent weeks Meredith, through the grasshopper figure, learned important lessons rooted in a strength-based perspective, including ways of approaching challenging tasks, requesting help, giving feedback, and coping more effectively with frustration. Her introduction of the grasshopper metaphor served as

a jumping off point, enabling the first author to understand significant details of her inner world and to communicate important therapeutic messages.

In our homes and schools, adults can reinforce the notion of personal control as the connection between effort and outcome by calling attention to instances in which a child's efforts influenced the outcome of an event. The following are but a few examples of such feedback:

"You really worked hard learning those spelling words and it showed on how nicely you did on this test?"

"I know it wasn't easy for you to memorize the lines for the school play, but all the hours you spent memorizing your part really paid off."

"Do you remember that the last time we went to the restaurant, it wasn't easy for you to wait for the meal and you started to yell? We spoke with you about it and this time you waited so nicely. We appreciate how you behaved."

To believe that problems are for solving rather than being overwhelming. Intimately tied to the task of reinforcing a belief in personal control but deserving special attention is the acquisition and use of problem-solving skills. If children act before they think and if they don't consider the consequences of their behavior, they will have difficulty developing effective coping strategies and a sense of personal control. Many of our patients demonstrate difficulties with problem-solving. In contrast, resilient youngsters are able to identify problems, consider different solutions, select what they believe will be the most effective solution, and learn from the outcome (Shure, 1996; Shure & Aberson, 2013).

Shure (1996), one of the foremost experts on reinforcing problem-solving abilities in children, has found that even preschool children can be assisted in developing and applying these skills. Shure as well as other professionals believe that even well-intentioned adults often rush in to tell children what to do rather than enlisting their input when faced with challenges. When children are afforded an opportunity to initiate their own plans of action with the guidance of adults, their feelings of ownership and personal control are reinforced.

The ability to solve problems at a young age was evident with 6-year-old Carl, a boy diagnosed with ADHD. In his attempt to make friends, he often invaded the space of his peers by giving them hugs, an action that not surprisingly backfired.

The first author asked Carl if he thought his behavior was a problem (this is a question that should always be posed since if children or adolescents do not perceive certain behaviors as problems, then they will not be motivated to change). If a child denies that a problem really is a problem, the therapist can engage in a discussion about why the behavior in question might be problematic. When asked this question, Carl looked sad and replied, "Big problem. I might not have any friends. But I just forget and I hug kids."

When asked if he could think of a way to begin to solve the problem, Carl did not hesitate to say, "I need reminders."

The first author inquired, "What do you mean by reminders?"

Carl said, "I think if the teacher reminded me each morning not to hug another kid, it would help me to remember."

"That's a great idea."

With the permission of Carl's parents, Bob arranged a meeting with Carl, Carl's teacher, and himself. His teacher in an empathic and supportive way began the meeting by telling Carl she was very pleased that he could tell the first author what he thought would be helpful. This comment immediately put Carl at ease.

To reinforce his problem-solving skills, Carl's teacher asked, "How would you like to be reminded?"

Carl said that he noticed that sometimes she would touch children on their shoulder and he thought if she did the same to him at the beginning of the day, it would be a good reminder.

She complimented him on this suggestion and then inquired, "How often would you like me to remind you?"

Carl's response was what the teacher later referred to as "precious." He was just learning to tell time and he jumped off his chair and held one hand up and said, "When the big hand is up and when it is down," which was accompanied by his moving his hand from an up to a down position.

The decision was made to start the reminders every 30 min the next day. At the end of the following day, Carl's mother called the first author to provide feedback. She said, "Carl came home very excited and said he thought the reminders were really going to work, but then he added that he thought he needed the reminders every 10 min."

Carl's teacher followed this suggestion and in a short time the reminders that were offered every 10 min were spaced out to every 30 min, and then every hour, and finally not needed at all.

It was Carl's input that led to this problem-solving strategy, a strategy that proved very successful.

The second author's work with Anna in which she used displacement in enlisting Anna's input of how to help a boy with anxieties is another example of engaging a child in problem-solving. In her work in schools, the second author has found that helping students to understand their learning strengths and weaknesses provides a platform from which they can consider different strategies for learning.

As an illustration, she asked Noah, a 15-year-old high school freshman who was described by his parents as "highly intelligent and curious but completely unmotivated in school and often distracted in class," if he had ever gone on a trip that he really enjoyed and still thinks about. She posed this question to move away from the more negatively tinged school environment in order to assess those activities that brought him pleasure and to consider how his interests might be applied to the problems he was encountering in school.

Noah's expression, which had been rather flat and tired looking, lit up as he began to describe his trip to China with his family the past summer. With much animation he described the landscape, the culture, and the people. The second author used Noah's response to introduce the different ways we learn, noting that he appeared to be an "experiential learner."

Noah, with obvious excitement in his voice, replied, "That's it. Is that why I'm so bored in class all the time?"

The second author explained that in addition to what occurs in the classroom, she and Noah could problem solve and consider ways to supplement his learning with hands-on experiences. Noah loved this idea, which his own self-observations had helped to produce. Fortunately, his high school had a practicum option for students, which connected what they were learning in the classroom with real-life experiences. With the second author's assistance, Noah was able to develop a plan that accommodated to his particular learning style. By encouraging his input, she also reinforced his sense of ownership.

We are often asked, "What if a child or adolescent patient is not able to say what might be helpful or has difficulty thinking of different solutions to problems?" It is not unusual for this to occur. When it does, we suggest that a therapist respond by saying, "Let's try to figure this out together" to engage the child in a dialogue that will eventually produce solutions.

As Shure (1996) has advocated, beginning at an early age, parents can nurture their children's problem-solving abilities by first providing simple choices (e.g., "Do you want to wear the blue dress or the green dress?" "Do you want to take a bath first or memorize your spelling words first?") and then moving to more complex choices and decisions. Countless situations emerge in which the input of children can be encouraged. The same can be done in schools, such as by inviting children to attend part or all of a parent–teacher–student conference or by having them select what two of three homework questions to answer that they believe will help them to learn best.

Shure and Aberson (2013) quoted the words of a parent who discovered the benefits of applying their problem-solving program. "I learned that I as a parent can be part of the solution for my child rather than adding to the problem. Before using this approach I was trying to take power and felt powerless. Now we solve problems together" (p. 500). In this example, both parent and child had become more resilient.

To appreciate that we all have strengths even when struggling with problems. Resilient children do not minimize or deny problems that they have. Denial runs counter to mastery. However, in addition to acknowledging and confronting problems, youngsters who are resilient are able to identify and use their strengths or their *islands of competence*. This metaphor represents a symbol of hope and resilience, a reminder that all children have strengths.

We regularly ask our child and adolescent patients what they judge to be their strengths or islands of competence. If they are not certain, we reply, "That's okay, it can take time to figure out what we're good at, but it's important to figure out." We always ask the parents and teachers of our patients to identify the strengths of their children or students and discuss ways to reinforce these strengths. It is also important to ask parents what they see as their own strengths, including in the parental role. We must move from a so-called "deficit model" in which the focus is on fixing problems to paying more than lip service to the strengths that reside in all children and adults.

The focus on strengths was embedded in the second author's interaction with Noah and their discovery that he was an "experiential learner." This permitted Noah to recognize that he performed at a much higher level with hands on experiences,

allowing him to understand that in fact he had strengths that were not readily displayed within a traditional classroom curriculum.

The first author saw 16-year-old Jamie, a high school sophomore, who struggled academically and socially due to learning problems. Her parents described Jamie's difficulty fitting in and being accepted by her peers. When the therapist asked Jamie about her strengths, she quickly replied, "I really don't have friends my own age, but I love to take care of younger kids. I babysit a lot in my neighborhood."

Interestingly, when Jamie's parents were asked their view of her strengths, without knowing what she had said her father replied with obvious delight, "She's like the pied piper of the neighborhood, parents love her to babysit for their young children. She's very patient with them. Although Jamie can be immature at times, she's very responsible as a babysitter."

At a school conference, the first author shared with Jamie's teachers both Jamie's and her parents' assessment of her strengths. The teachers brainstormed about how to use this island of competence. Fortuitously, there was a nursery school right next to the high school. The teachers, displaying an impressive capacity to think and act outside the box, developed a plan. They spoke with the nursery school director and designed a course for Jamie called "child development." During a free period four times a week Jamie went to the nursery, interacted with the children, and then wrote about her experiences.

One of the teachers was also an advisor to the high school newspaper and helped Jamie author an article about her work at the nursery school for the newspaper. When the article was published, several of Jamie's peers who typically would not have gone out of their way to speak with her, came over to compliment her. Jamie felt accepted in high school for the first time. In reading Jamie's article, other students requested to spend time in the nursery school so that the "child development class" was expanded.

In another example, Billy, a 10-year-old boy who disliked school because of his struggles with learning, often refused to comply with teacher requests; he also bullied his classmates. When asked about his islands of competence, he identified his knowledge of taking care of his pet dog. Consequently, the principal appointed Billy as the "pet monitor" of the school to insure that all of the pets in the school were well taken care of. His teacher enlisted him in writing a short book about taking care of pets that she and the principal had bound and placed in the school library. Billy also gave "lectures" in different classrooms about how best to take care of a dog. With his island of competence on display, his attitude towards school improved significantly as did his behavior and academic work.

In our workshops for parents, we suggest that they consider what islands of competence their children have and how best to honor these strengths. One father revealed that he loved sports, but his 7-year-old son did not. Instead, his son loved doing artwork. This father said, "I knew that if I was going to have a good relationship with my son I had to focus less on encouraging him to play sports and more on reinforcing his artwork." This father was not very interested in art, but with his son's enthusiastic approval, he enrolled both of them in an art class at a local museum.

After just one lesson the father reported the joy he experienced in watching his son's excitement as they both attended the class.

We advocate that teachers make a list of all of their students and next to the student's name write what that student perceives as his or her island of competence and then ask, "Are we reinforcing this strength in the school setting?"

If children are to be resilient not only must they perceive that they have strengths but, as importantly, they must believe that their strengths are appreciated and supported by the significant adults in their lives.

To believe that we make a positive difference in the world. When the first author was collecting material for his book *The Self-Esteem Teacher* (Brooks, 1991), he requested approximately 1,500 adults to complete an anonymous questionnaire. The first question asked them to report on a positive memory of school when they were students, something an educator said or did that boosted their self-esteem. Bob had not anticipated the content of the most commonly reported positive memory, namely, being asked to help out in some fashion. The following are a few examples:

"I remember when a teacher asked me to pass out the milk and straws."

"I felt so good when a teacher asked me to tutor a younger child."

"I remember when a teacher told me I was a good artist and asked me to draw some signs as part of an anti-litter campaign."

Brooks and Goldstein (2001, 2004) proposed that there is an inborn need to help that continues to be a powerful force throughout our lifespan. As Werner (1993) captured in her longitudinal research, resilience was nurtured when children were provided opportunities to help others, an activity that Brooks and Goldstein (2001) have called "contributory activities." Involvement in these activities nurtures a very important belief in a child, one that reinforces a sense of purpose, namely, "What I am doing adds to the well-being and happiness of others."

We have already offered several examples in this chapter about the use of activities that contribute to others. They include the second author's asking Anna for suggestions of how best to help another student, Jamie working with younger children in a nursery school, or Billy providing insights about taking care of pets. In addition, when conducting psychological evaluations, we will often ask the child to help bring the tests from the shelf or closet to the table. We have found that by doing so, the child feels more empowered and more in control of the evaluation process.

Another technique we use as therapists occurs when children arrive at excellent strategies for solving particular problems. We comment how helpful their idea was and in selected instances we add, "That's such a good idea, I'd love to use it with other kids. I think it will really be helpful to them."

We are frequently asked by parents at our workshops what they can do to develop compassion and responsibility in their children. One response we offer is to ask parents to consider how their children would reply to the following questions:

"What are the ways you have seen your parents help other people in the past few months?"

"What activities have you been involved with together with your parents in the past few months in which you have helped other people?"

Children are more likely to become altruistic and caring if they not only observe their parents in helping roles but if they are enlisted in such roles themselves. As parents involve their children in these roles, they would be well-advised to say as often as possible, "We need your help" rather than "Remember to do your chores." Not surprisingly, most children do not like to do "chores," but are especially willing to engage in the same activities when they are cast in terms of helping others. Parents who encourage their children's participation in charitable endeavors, such as walks for hunger or AIDS or breast cancer research, are supporting a resilient mindset.

In our consultation with parents and teachers we have emphasized that charitable activities can be used to reinforce other components of a resilient mindset such as problem-solving (e.g., what charity to support, how to raise money for the charity), empathy (e.g., taking the perspective of the people you are assisting), and applying one's islands of competence (e.g., Jamie's love for and understanding of young children being expressed in her work in the nursery school).

To recognize that mistakes are not only expected but also accepted. Attribution theory teaches us that resilient children, while not thrilled when making mistakes, view setbacks as opportunities for learning. For example, resilient children who fail a test will ask for help and/or problem solve about more effective ways of studying. In sports, resilient children will take extra batting or fielding practice to improve their batting and defensive skills. These youngsters attribute mistakes to variables they can correct.

The picture is much different for children who are not resilient. They attribute mistakes to factors that they cannot change, whether it be their intelligence or an inborn lack of skills. They believe that regardless of what they do, nothing will ever change. Eventually, not wishing to face additional failure and its accompanying sense of humiliation, they often adopt self-defeating ways of coping. They retreat from challenges, become class clowns or class bullies, or blame others for their problems. A boy in therapy said, "I'd rather hit another kid and be sent to the principal's office than have to be in the classroom where I feel like a dummy."

Therapists are in an excellent position to reinforce a positive attitude towards mistakes and lessen self-defeating behaviors in children and adolescents. They can assess a child's mindset about mistakes by asking directly or through displacement (as Suzanne did with Anna) questions that tap the child's attributions. We can wonder with children the reasons they thought they were not successful at a task, what they might do differently next time (this, of course, also engages a child's problem-solving skills), and who might be available to help.

A favorite technique in our therapy or consultation activities occurs when we have helped to develop a plan of action with our child patients and/or their parents and/or their teachers. Given the particular situation, we might say, "This plan sounds great, but what if it doesn't work?" Some might wonder if posing such a question represents a self-fulfilling prophesy for failure. It could if we did not immediately add, "What is our back-up plan if it doesn't work?"

The reason for asking these questions was prompted by the reaction of some of our patients or those with whom we were consulting when a plan of action proved unsuccessful. Many became frustrated and angry. It was not unusual for us to hear from teachers or parents, "We went out of our way to change things, but the child is still not willing to change" or one parent lamented, "I guess this works for most parents, but I must really be doing something wrong."

We learned that if people are to have a more positive attitude about mistakes, we must build in the possibility of failure occurring together with the message that if one strategy is unsuccessful, we can learn from that setback when initiating other strategies.

In our consultations with teachers, we have frequently said that there is a "raging elephant" that exists in almost every classroom, an elephant that lessens learning and resilience. We identify the elephant as the fear of failure and humiliation and pose the question of how best to remove this negative force. One technique we have recommended is to directly identify the elephant by teachers asking their class at the beginning of the school year, "Who feels they are going to make a mistake or not understand something in class this year?" Before any of the students can respond, we suggest that teachers raise their own hand as a way of initiating a discussion of how the fear of making mistakes affects learning.

As part of this dialogue we encourage teachers to share some of their own anxieties and experiences about making mistakes when they were students. They might even discuss a time when they were embarrassed or humiliated by something one of their teachers said (students love to hear these accounts). They can turn the discussion into a problem-solving exercise by asking, "What can I do as your teacher and what can you do as a class so that no one will ever feel humiliated in this class and no one will be afraid to make mistakes?"

Teachers have reported very positive results when using this exercise. One teacher informed us, "After I openly discussed the issues of mistakes and humiliation, it was the most discipline-free year I've ever had." She discovered that when children are not afraid about making mistakes, they are less likely to engage in negative behaviors in the classroom.

Parents are in an excellent position to help children from a very early age develop the belief that we can learn from mistakes. If children can incorporate this viewpoint, they will be more resilient and better equipped to face challenges. To assist parents with the goal of helping their children to be less fearful of making mistakes, we ask them to consider what their children's answers would be to the following two questions:

"When your parents make a mistake, when something doesn't go right, what do they do?"

"When you make a mistake, how do your parents respond?"

In terms of the first question, parents serve as significant models for handling mistakes. It is easier for children to learn to deal more effectively with setbacks if they see their parents doing so. Bob asked the first question to Joan and Roger Norwood, parents of Betsy, an 11-year-old girl who was very anxious and typically quit at activities after just a brief attempt. As they reflected on the question, Joan

realized that they were not "great models for dealing with mistakes." She said that Roger gets very frustrated when he has trouble doing something, often shouting obscenities and blaming others, while she frequently gives up on things herself.

Roger agreed with his wife's observations, adding, "I was also thinking of your second question. I think that Betsy would say that we get annoyed when she makes a mistake, especially when we feel she has rushed through things or put little effort in to what she was doing. I know that we've said some things to her out of our own anxiety and frustration that were hurtful to her such as 'Why don't you stop and think about what you're doing?' or 'You've got to slow down and use your brains.'"

These two questions about mistakes prompted Joan and Roger to assess their reactions to their own mistakes as well as how they responded to Betsy's setbacks. They became more empathic, reflecting on how their actions impacted on their daughter. In addition, they began to use problem-solving techniques by asking themselves and Betsy, "What can we do differently next time so as not to make the same mistakes?"

These changes in their mindset and approach proved fruitful. Joan reported with much delight that Betsy did something she would not have done just a few months earlier. "She tried out for a play in school and while she didn't get the role she hoped she would get, she did get another role that involves a few speaking lines."

Joan and Roger learned an important lesson, namely, that if we are to reinforce a resilient mindset in youngsters, our words and actions must convey the belief that we can learn from mistakes rather than feel judged or condemned for making them.

Concluding Comments

We believe that one of our most important roles we can assume when working with or raising children is that of a charismatic adult. By identifying the characteristics of a resilient mindset, we can interact with children in therapy in ways that will nurture this mindset so that they can lead more hopeful, responsible lives. As therapists we can also engage their parents, teachers, and other involved professionals to assume this same role so that the children and adolescents in our care have many adults from whom they gather strength. Such youngsters will be prepared to overcome current difficulties and face new challenges with greater courage, skills, and perseverance.

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Part II
Interventions for Schools and Non-Clinical Populations

Chapter 5
Using the FRIENDS Programs to Promote Resilience in Cross-Cultural Populations

Paula M. Barrett, Marita Cooper, and Julia Gallegos Guajardo

Adolescence is a developmental period often marked by its psychosocial challenges rather than its opportunities. However, with young brains still in formative stages, adolescence holds great prospects for fostering an individual's positive self-concept and strengthening protective factors. Over recent decades, researchers and clinicians have shown an increased interest in resilience.

Resilience is commonly considered the protective factors used to adapt in stressful situations to minimize adverse outcomes. However, in the opinion of the authors, resilience is also the confidence and strength to take on positive life challenges. Thus more than the ability to overcome difficult life events, resilience is also the strength to take advantage of opportunities and give things a go. In this chapter, we highlight the importance of exploring mental health concerns in youth populations as well as discussion of risk and protective factors of emotional well-being in

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youths. This is followed by a brief review of resiliency enhancement in youth before introduction of the FRIENDS protocol, four socio-emotional skills programs. A detailed description of the programs is included along with research evaluating program outcomes and adaptations for use in diverse youth populations. Finally, recent innovations in conceptualization, research, assessment and intervention of resilience and future directions for research are discussed.

Mental Health Concerns and Their Etiology in Youth Populations

Adolescence is a period of biological, psychological and social transformations and, consequently, many challenges leading to heightened risk and vulnerability. The youth to young adult transition is marked by dramatic changes in self-concept and expectations. Challenges throughout adolescence include: biological changes, such as the emergence of puberty and continuing brain development; legal changes, such as marriage, voting, and driving rights; and identity changes, with the development of independence and autonomy from caregivers. Additionally, there is also entry into the working world, increased educational pressures and often introduction to substances and alcohol. Any one of these factors individually would highlight high levels of risk and vulnerability and yet youth are expected to navigate through all of these simultaneously.

In addition to the normal stressors of adolescence, some youth also face additional challenges such as migration, violence, abuse, poverty, chronic illness, and trauma. Even more damaging is the fact that often these events become a cycle, with risk factors leading to future risk factors, co-occurring and cumulating. Thus, not only does a child experience one stressor in isolation, for example poverty, but also this then leads to further stressors, such as school dropout or witnessing gang violence, the accumulation of these vulnerabilities leading to future maladaptive outcomes.

Understandably, adolescence is a frequently highlighted risk period for mental health concerns. Approximately one in five Australian adolescents report experiencing significant mental health difficulties, a figure consistent with international prevalence rates (Sawyer, Miller-Lewose, & Clark, 2007). However, in a recent study in Brisbane preschools, one in three children were found to have clinically significant anxiety supporting the literature consensus of a downward trend in symptomology (Anticich, Barrett, Silverman, Lacherez, & Gillies, 2013). Considering that risk factors for developing internalizing disorders can be identified from infancy, recent trends in the literature have moved towards a focus on prevention and promotion of resilience and coping skills (Dadds & Roth, 2008; Greenberg, 2000).

In comparison to treatment programs that are implemented after the onset of a disorder, prevention programs can reduce the incidence of a mental health concern prior to onset. This means that positive coping skills are taught before maladaptive cognitive styles and behaviors are fully established. Furthermore, prevention programs have the benefit of simultaneously reducing negative outcomes including

delinquency, substance use, psychopathology, and violence as well as promoting and enhancing well-being and resiliency (Greenberg, 2000). Whilst medical systems place equal importance on treatment and prevention initiatives, evidence-based prevention programs are under-recognized and under-implemented within mental health care systems (Giesen, Searle, & Sawyer, 2007). Efficacious prevention programs rely on the use of a framework incorporating research-based risk and protective factors (Giesen et al., 2007). As such, the following sections will review factors related to vulnerability and risk as well as protective factors identified in youth populations.

Risk Factors in Youth Populations

Risk factors are individual, familial, and environmental characteristics that increase the likelihood of poorer developmental outcomes. Investigating the stressors implicated in the development, maintenance or exacerbation of mental health challenges is essential to creating a successful prevention program. The etiology of mental health concerns is commonly complex and can implicate not one but a chain of genetic, environmental, social, and psychological risk factors. This section will review the impact of parental psychopathology, behavioral inhibition, trauma, and biological changes on the development of mental health concerns.

Research has shown an extensive range of cognitive and behavioral responses and outcomes resulting from trauma. Although trauma was a term initially used by surgeons for describing a physical injury, it now encompasses physical, psychological, environmental or social "wounds." Common traumatic events may include chronic illness, bullying, poverty, abuse, or natural disaster. In a recent study of 1,024 adolescents, a range of common stressful life events were associated with deleterious mental health outcomes including substance use, affective problems and behavioral difficulties (Low et al., 2012). Although this seems like a logical link, interestingly, Low et al. (2012) were not looking at more severe traumatic events such as poverty, death, abuse or chronic illness. Instead, the study explored more common life events including feeling stressed or worried about family relationships, friendships, schoolwork or body mass. Although this continues to support links between stressful life events and mental health difficulties, it highlights that it is an individual's negative appraisal of a stressful event, not society's, that is likely to lead to poorer health outcomes.

Unique from other traumas, parental psychopathology is a separate risk factor with both genetic and environmental explanations commonly accepted as pathways to the development of childhood disorders. The heritability of internalizing disorders has been well established in family aggregation studies of both the offspring of anxious parents and the parents of anxious offspring (for a review, see Drake & Ginsburg, 2012). Connell and Goodman's (2002) meta-analytic review examined associations between parental psychopathology and both internalizing and externalizing disorders in children. From the 230 articles found by these authors on parental mental health concerns and childhood internalizing difficulties, it was found that

both maternal and paternal psychopathology significantly predicted childhood symptomology (Connell & Goodman, 2002). Despite this, weighted mean effect sizes found from this study were small, and it was found that effects were moderated by child factors, including age and gender, as well as type of parental diagnosis (Connell & Goodman). Unfortunately, there is currently a lack of evidence exploring how parental resilience affects the development of childhood resilience.

Amongst traits genetically implicated in the development of anxiety, behavioral inhibition has been shown to be one of the most genetically stable (Takahashi et al., 2007). Behavioral inhibition has been defined as a temperamental trait characterized by heightened behavioral and emotional reactions to novel or unfamiliar stimuli (Kagan, Reznik, & Snidman, 1987). A common feature of etiological research into internalizing disorders, behavioral inhibition is recognized as one of the earliest identifiable risk factors for future symptomology (Marysko, Finke, Wiebel, Resch, & Moehler, 2010). Utilizing a sample of 104 preschool-aged children, Shamir-Essakow, Ungerer, and Rapee (2005) examined the relationship between behavioral inhibition, attachment, and both maternal and child anxiety. Interestingly, even when controlling for the effect of both attachment and maternal anxiety, behavioral inhibition was still predictive of child anxiety (Shamir-Essakow et al., 2005). Importantly, this indicates that the contribution of behavioral inhibition to childhood anxiety extends further than familial predisposition towards anxious symptomology.

As noted earlier, the brain is rapidly changing throughout the adolescent period. Throughout childhood and adolescence there is not only a significant increase in the overall volume of grey matter, but this is also followed by an overall loss in grey matter (Rutter, 2007). This process is reportedly due to a process of synaptic pruning, which simply put is the procedure of reducing overall neurons and synapses to improve brain efficiency (Rutter). On top of brain development, adolescence and subsequent pubertal maturation involves a surge of hormones including testosterone and estradiol (Peper & Dahl, 2013). Although future research is required to provide greater information into specific hormonal effects, current evidence indicates that pubertal hormones impact on risk taking, delinquency, aggression, and cognitive processes (Peper & Dahl).

Protective Factors in Youth Populations

Despite exposure to risk factors, such as those outlined above, researchers began to notice that not all youths exposed to these events proceeded to develop symptomology. Consequently, literature has moved towards understanding protective factors and resilience, the characteristics that moderate the link between stress and positive outcomes. Research into resilience is an exploding field in scientific literature, with the volume of resilience-related literature increasing eightfold since 1990 (Ager, 2013). The definition of resilience, despite being a frequently used term, is a topic of frequent contention. From simple descriptions of the ability to "bounce back" from adversity to specific individual characteristics, this chapter will utilize the new

wave definition of understanding resilience as an ecological phenomenon. Resilience, as defined by Ungar (2008), is an individual's ability to both navigate towards and negotiate for health resources in the face of significant adversity. Health resources can be at individual, relational, and community levels, and are required to be developed through culturally relevant approaches. Building on this, the current authors believe that resilience also involves possessing the confidence to embrace positive life challenges, such as work opportunities, leadership roles, and new experiences. Although these situations may be anxiety-provoking, the resilient child/adult has more strength to take on risks and learn new skills. The following section highlights key factors related to resilience and the increased likelihood for healthy emotional well-being.

Although traditionally school curriculums worldwide have focused heavily on the academic learning of children, there has been a shift in recent years towards teaching social and emotional skills in the classroom. Highly linked with resilience, socio-emotional competencies include: self-awareness, social awareness, self-management, relationship skills, and responsible decision-making (CASEL, 2011). Socio-emotional skills are a key milestone in young children's future academic, psychological, and social outcomes. These skills provide us with the ability to successfully establish and negotiate peer interactions, develop a positive self-concept and better understand and regulate our emotions.

Delays in socio-emotional skills are suggested to stem from difficulties in the parent–child attachment relationship (McCabe & Altamura, 2011). Ainsworth (1989) defined attachment as the enduring emotional bond between two individuals. The development of positive attachments with primary caregivers is a fundamental milestone for future affective, cognitive, and behavioral development. Since Bowlby's (1973) early attachment work, insecure attachment styles have been indicated in future emotional and behavioral difficulties. Stable, secure attachments enable children to feel comfortable, viewing the world as a safe and predictable place whereas disorganized or insecure attachments are related to feelings of general mistrust, abandonment and heightened threat perception in their relationships with others and the world. Although initially a child will be dependent on an attachment figure for safety and reassurance, as they develop the child gradually internalizes this attachment bond. Relationships that promote stability and trust lead to children who perceive the world as dependable and trustworthy, which is an early stage in empathy development. Rather than the old adage "Nobody will love you until you love yourself," attachment theory posits that we all must be shown love before we can know how to love ourselves.

Another factor both shaped by and integral to the development of socio-emotional skills is peer relationships. The presence of positive peer relationships is a stable predictor of long-term adjustment (Gulay, 2011; Ladd, 1999). Prosocial behaviors with peers are significantly related to decreased aggression, asocial behavior, exclusion, anxiety, hyperactivity, and victimization (Gulay, 2011). During adolescence, youths begin to gradually gain independence from their parents, with more support and guidance stemming from peer relationships. It is important for adults to promote positive friendship skills and constructive friendships in youths. Being able to navigate through these friendships is crucial for skills in self-regulation and

progress towards a self-made adulthood. For parents, it is key that an adolescent's activities are monitored to ensure safety, with structured activities such as sports being optimal. Although peer attachments have been a previously under-researched aspect of attachment theory, a novel study by Laible, Carlo, and Raffaelli (2000) showed that reporting strong and secure attachments with peers predicts positive adjustment above either individual parent or peer attachment relationship alone.

Although there has been much focus in attachment literature on the importance of caregivers, a further key factor is the connectedness to one's school and wider community. Humans have a biological need to develop and maintain strong and secure interpersonal relationships, and this does not end after childhood (Baumeister & Leary, 1994). Young and middle adulthood periods are often defined by this search for attachment figures, whether in the form of partners, friendships, or children. Building bonds with the community is one method of continuing to establish meaning and connectedness as we age. Additionally, participation in community projects provides opportunities to establish relationships across cultural and age divides, promoting interconnectedness in the social environment. Belongingness to one's school and community provides an ideal opportunity that relates to key aspects of resilience including increased peer contact, access to positive role models and supports, positive school experiences, as well as a sense of empowerment.

Resilience Promotion in Adolescents

Although still lagging behind the ratio of prevention to treatment articles in medical fields, there has been an exponential increase in the focus on prevention in psychological literature. Considering that the accessibility and volume of adolescent mental health services is typically substantially poorer than for adults, preventative interventions are key in the promotion of youth mental well-being (Levav, Jacobsson, Tsiantis, Kolaitis, & Ponizovsky, 2004). Despite the complex trajectories of mental health concerns, researchers have identified a range of risk and protective factors. Built on these findings, an evidence-based framework can be utilized for preventative interventions used in not only primary care settings but also in other health care settings and schools.

Prevention programs can be aimed at three targets: Universal (targeted at the whole population irrespective of risk), Selective (targeted at individuals or groups at heightened risk for symptomology), and Indicated (targeted at individuals exhibiting mild symptoms). Whilst there are pros and cons to each of these approaches, universal prevention programs have the added benefit of reducing stigma associated with mental health interventions, are proactive and positive, and reach a greater range of individuals. In terms of settings, universal approaches can also be administered in schools to promote resiliency both to wider populations and over consecutive years for inoculation of skills. Using this approach, prevention programs can be seen as a vaccine, updated throughout the lifespan to enhance resilience.

Durlak and Wells' (1997) seminal review evaluated the outcomes of 177 primary prevention studies. The meta-analysis demonstrated that not only did most

programs achieve significant positive effects, but they also significantly improved difficulties, competencies and functioning across several adjustment domains. This was replicated in Durlak, Weissberg, Dymnicki, Taylor, and Schellinger's (2011) more recent meta-analysis examining universal school-based socio-emotional skills programs. This second study found that teacher-delivered programs were also effective in improving social and emotional skills, behavioral adjustment, prosocial behaviors, internalizing difficulties, and academic performance.

As earlier highlighted, prevention must be approached with an understanding of risk and protective factors for the targeted population. Although fear and sadness are universal experiences across cultures, the expression and focus of these emotions change throughout development as well as across different cultures (for a review of cross-cultural anxiety, see Barrett, Turner, & Sonderegger, 2000). Results from a recent study of Hispanic, Caucasian and African-American youth showed that effects of strengths and impairments differ based on ethnicity (Barksdale, Azur, & Daniels, 2010). Consequently, understanding the experiences of individual groups and associated cultural values and variables is even more imperative when working in diverse populations.

The FRIENDS Programs

The *FRIENDS program* was developed by Dr. Paula Barrett (2012a, 2012b, 2012c, 2012d, 2012e, 2012f) with the aim of increasing social and emotional skills, promoting resilience and preventing anxiety and depression in children and youth. The manualized program is grounded in cognitive-behavioral theory (CBT) and positive psychology approaches. Based on efficacy research, CBT is now recommended as the gold standard for treating and preventing anxiety and depression (Gladstone & Beardslee, 2009; Neil & Christensen, 2009). *FRIENDS* is an acronym for the skills taught in the three younger programs, whilst the adult program uses the acronym LIFE.

The *FRIENDS for Life program* targets children aged from 7 to 11 years old whilst *My FRIENDS Youth program* target adolescents ages 12–16 (Barrett, 2012b, 2012e). All of the *FRIENDS* programs overlap in content; however, they differ in the method of delivering skills with each program using developmentally appropriate activities. Specifically, whilst younger programs such as *Fun FRIENDS* and *FRIENDS for Life* encourage more play-based techniques including puppets, story books and coloring activities, the *My FRIENDS Youth* and *Strong not Tough* programs utilize role plays, group discussions and written activities. After the introductory session, children start to learn the letter *F*, which stands for "Feelings"; followed by the letter *R*, "Remember to Relax"; *I*, "Inner helpful thoughts"; *E*, "Explore solutions and coping plans" *N*, "Now reward yourself";; *D*, "Do it every day"; and *S*, "Stay strong inside." Approximately one session is dedicated to learn each of the seven steps represented by the FRIENDS acronym with each session building on the work from previous sessions (see Fig. 5.1). As can be seen the program attempts to build key protective factors for promoting resilience, as covered earlier in this chapter.

Session	Protective factors	Skill components	Targets
Session one	Social and emotional skills (Self-awareness)	Goal setting Strength building exercises Sharing personal interests	• Introduce participants to the program • Increase understanding of individual similarities and differences
Session two	Social and emotional skills (Self-awareness and self-management)	Body clue posters Self-regulation and self-soothing skills	• Building awareness of physiological symptoms • Increasing emotion regulation
Session three	Social and emotional skills (Social awareness and relationship skills) Peer relationships	Learning about confidence Safety cues How to be a friend to ourselves and others	• Understanding how to build confidence and common confidence traps • Building friendship skills
Session four	Social and emotional skills (Self-management)	Mindfulness activities Relaxation skills	• Becoming more aware of ourselves and our environment • Building skills to better manage emotions
Session five	Cognitive behavioral strategies	Psychoeducation regarding the cognitive model Cognitive disputation skills Attention training	• Understanding the thoughts-feelings-behavior link • Learning about unhelpful and helpful thoughts and how to challenge them • Focusing on helpful things
Session six	Cognitive behavioral strategies	Cognitive disputation	• Consolidation skills in identifying and challenging unhelpful thoughts
Session seven	Social and emotional skills (Self-management, responsible decision making)	Coping step plans	• How to set realistic goals • Taking small steps towards our goals
Session eight	Social and emotional skills (Self-management, relationship skills, and responsible decision making) School and community connectedness Parent attachment Peer relationships	Problem solving plans Identifying support networks and role models	• Considering multiple solutions with both long and short term consequences • Using support networks and role models as resources for dealing with challenges
Session nine	Social and emotional skills (Relationship skills and responsible decision making)	Conflict resolution strategies Assertiveness skills Rewarding for partial successes	• How to deal with conflict • Managing bullying • The importance of self-reward
Session ten	School and community connectedness Social and emotional skills (Self-awareness, social awareness, and responsible decision making)	Creating setback plans Giving back to the community	• Preventing relapse • Increasing community involvement

Fig. 5.1 Session by session description of the My Youth FRIENDS program

The *FRIENDS* programs incorporate physiological, cognitive, and behavioral strategies to assist children and adolescents in coping with stress and worry. The behavioral component includes exposure, relaxation training, assertiveness training coping and problem solving plans, and conflict resolution. The cognitive component teaches children and adolescents to recognize their feelings and thoughts and the link between them. It also teaches them to identify faulty cognitions and incompatible self-statements, and to develop alternative interpretations of difficult situations. Through the program, protective factors such as self-esteem, self-concept, coping skills, hope, and social support are enhanced. Within each session, the facilitator models the skills, the skills are taught children and adolescents, after which they have opportunities to practice in small groups and debrief with the whole classroom. Learning techniques include group discussion, hands-on activities, and role-play to support peer and experiential learning. The building of social support groups and respect for diversity is strongly encouraged through the program.

There are two information sessions for parents of approximately 2 h length each. In these sessions parents learn about skills and techniques to enhance resilience at home, the importance of family and peer support, the promotion of the practice of problem solving rather than avoidance, a healthy family step plan and effective parenting strategies.

There have been significant revisions in the most recent editions of the FRIENDS programs. With rising evidence for the importance of attention and awareness, new editions include more content encouraging positive attention and mindfulness

practice. These skills enable participants to build skills in awareness, to choose acceptance of emotions and experiences rather than avoidance, as well as to focus on positive stimuli in their environment instead of negative. Considering research on community involvement, revisions include exercises on giving back to the community and altruism. Furthermore, there has been an increased focus on connecting with extended family and the community as well as encouraging the recognition of both distant and close connections. This revision in particular was to help encourage youths appreciate attachment bonds with individuals they may be separated from, for example in the case of participants who have recently migrated. Empathy training has also been expanded to include all living beings and the environment to build an understanding that all living beings experience emotions and therefore need our kindness and care. Although the programs were originally more focused on internalizing symptoms, recent editions of the FRIENDS manuals have also included further examples related to externalizing symptoms. Lastly, home activities have been expanded to encourage healthy lifestyle factors including good sleeping habits, healthy eating, and physical activity.

Regarding implementation, FRIENDS can be delivered at all levels of prevention, early intervention, and treatment. It can be implemented at the universal, selective, or indicated level of prevention within a school or community setting. Depending on the type of delivery, the program can be implemented by teachers, psychologists, nurses, social workers, or school counselors after they have undertaken a training workshop. As highlighted in Giesen et al.'s (2007) review on effective prevention programs, training is essential to ensure that the treatment fidelity of a program is maintained. Furthermore, the nature of these programs is to manage and prevent mental health concerns; as such, facilitators require training to ensure the safety of all participants, regardless of previous facilitator experience. Lastly, training is a key aspect to teach facilitators not simply the content of the program but rather the process of facilitating the program.

Regardless of the setting in which FRIENDS is provided the content of the program remains the same; however, between each setting the process of the group will change. In clinical settings, the programs are typically either a targeted program or early intervention program where children and youths are already at risk or exhibiting mild symptoms. In comparison, in a nonclinical or educational setting programs are typically conducted at the universal level. Due to these differences, there will be a greater depth of material covered in clinical settings, as opposed to nonclinical, as well as clinical groups being more likely to work with more private and personal issues.

The FRIENDS program consists of 10 weekly sessions and two booster sessions that can be held approximately 1 and 2 months after completing the program. Each session has a duration of 60–75 min, however if this is not possible sets of two sessions can be conducted over two 30–35 min periods each. For the selective or indicated level of prevention, it is ideal to work in groups of approximately 6–10 children/adolescents. For the universal intervention in a classroom setting it will be usefully to have students work in small groups and then share ideas with the large group. It is highly recommended in universal prevention to deliver the program with an adult helper or co-facilitator that will assist in managing group process and helping students.

The positive findings of FRIENDS across different countries, different settings, and different stages of childhood and youth led Dr. Paula Barrett to create a resilience program for adults. The *Strong not tough: Adult resilience program* (Barrett, 2012f, 2012g) was recently developed as an extension of the FRIENDS evidence-based program to target older adolescents and adults. Strategies taught in the program include mindfulness and attention training, challenging unhelpful thoughts, identifying role models and support networks, problem-solving strategies, conflict resolution, and assertiveness training.

Studies of the FRIENDS Programs with Youth Populations

The FRIENDS program has an existent evidence base and is the only program that is supported by the World Health Organization for the prevention and treatment of anxiety and depression in children and youth (World Health Organization, 2004). It has also been cited by The National Research Council (2009) and The Cochrane Collaboration Library (James, Soler, & Weatherall, 2005). The first published study evaluating the program as a universal intervention was conducted by Barrett and Turner (2001) with 489 children aged 10–12 years old. Results showed that children who received the program reported a reduction in anxiety symptoms and those children considered "at risk for anxiety" also reported a reduction of depressive symptoms. Subsequent studies have also reported reduction in anxiety and depressive symptoms and positive changes in risk status after completing the program (Lowry-Webster, Barrett, & Dadds, 2001). Follow-up studies have reported that gains are maintained at 12-month follow-up (Lowry-Webster, Barrett, & Lock, 2003).

Studies have also evaluated the effectiveness of *FRIENDS for Life* as a universal intervention in other parts of the world. The first study was conducted in the United Kingdom and studied the effectiveness of the program implemented by school nurses with 213 children aged 9–10 years old (Stallard et al., 2005). After completing the program, children reported significant reductions in anxiety symptoms, an increase in their self-esteem, and high levels of satisfaction with the program. Furthermore, results showed that significant improvements were obtained by over half of the children with more severe emotional problems. This study was recently replicated by Stallard, Simpson, Anderson, Hibbert, and Osborn (2007) who found that these gains were maintained at 3-month follow-up. Similar findings including reduction in children's anxiety symptoms and an increase in their self-esteem have also been found 1 year following intervention completion (Stallard, Simpson, Anderson, & Goddard, 2008).

Essau, Conradt, and Ederer (2004) conducted a study with 200 German children aged 9–12 years old, finding similarly a significant reduction in children's anxiety symptoms and high levels of children's and parents' satisfaction with the program. The study by Essau et al. (2004) also evaluated the relationship between the level of children's satisfaction with the program and their clinical outcomes. The study found a significant correlation suggesting that higher levels of child satisfaction

with the program were related to lower levels of self-reported anxiety. A subsequent study in Germany by Essau, Conradt, Sasagawa, and Ollendick (2012) with 638 students, aged 9–12, reported similar findings. At 12-month follow-up, students who participated in the FRIENDS program exhibited significantly lower levels of anxiety and depressive symptoms, and lower levels of perfectionism scores, when compared to those in the control group. This study also found that younger children reported more immediate changes, and that perfectionism and avoidant coping act as mediators of changes in anxiety scores.

A study conducted by Gallegos, Linan-Thompson, Stark, and Ruvalcaba (2013) with 1,030 Mexican children, grades 4 and 5, found a reduction in depressive symptoms and risk for depression and an increase in the proactive coping skills of those receiving the FRIENDS program. Social validity was also evaluated and findings showed that the students, teachers and parents enjoyed the program and found it useful. Furthermore, correlations were found between the level of satisfaction with the program and students' depressive symptoms, risk for depression, and coping skills. This suggests that higher levels of student satisfaction are related to decreased depressive symptoms and risk for depression, and increased proactive coping skills (Gallegos-Guajardo, Ruvalcaba-Romero, Garza-Támez, & Villegas-Guinea, 2013).

Universal Implementation of the FRIENDS Programs

The following studies have included youth population in schools settings. Lock and Barrett (2003) conducted a study with 733 Australian students enrolled in grade 6, aged 9–10, and grade 9, aged 14–16 years. Results showed that those receiving the FRIENDS program reported greater reductions in anxiety and depressive symptoms at 12-month follow-up. Particularly, those students in grade 6 and female students reported significant reductions in anxiety. Those in the intervention condition, when compared to the monitoring group, also reported a significant decrease in behavioral avoidance. Barrett, Farrell, Ollendick, and Dadds (2006) conducted the 24- and 36-month follow-up of Lock and Barrett's (2003) study. Their sample comprised 334 grade 7 students and 335 grade 10 students. Results showed that, at both time points, fewer students in the intervention group were at risk for anxiety and/or depression when compared to the monitoring condition. Regarding anxiety symptoms, younger students reported greater reductions in anxiety and younger females, in particular, were more responsive to the intervention (Barrett et al., 2006).

A similar study was conducted by Barrett, Lock, and Farrell (2005) with 692 children and adolescents aged 9–16 years old of seven Australian schools. After receiving the FRIENDS program, the intervention group also reported significantly greater reductions in anxiety at 12-month follow-up, when compared with the monitoring condition. Results showed greater reductions in anxiety symptoms for students with moderate and high risk for anxiety who received the program. Particularly, students at risk for anxiety in lower grades reported greater reductions in depression when compared with the older age group (Barrett et al., 2005). This study along with that by Barrett et al. (2006) suggest the importance of early prevention in reducing symptomology.

Similar results to these early studies have been replicated worldwide. Literature from South Africa has also shown significant reductions in anxiety following completion of FRIENDS programs for up to 6 months (Mostert & Loxton, 2008), whilst Ahlen, Breitholtz, Barrett, and Gallegos (2012) also demonstrated reductions in depressive symptomology and increases in overall mental health in Swedish students. In a recent meta-analysis, Fisak, Richard, and Mann (2011) evaluated child and adolescent anxiety prevention programs. Of all programs included, use of the FRIENDS protocol was found to moderate treatment effectiveness indicating that the FRIENDS programs demonstrated significantly greater reductions in anxiety than other interventions.

More recently, studies have also moved from simply focusing on deficits to evaluating effects of the FRIENDS programs on coping strategies and positive outcomes. Stopa, Barrett, and Golingi (2010) implemented a universal school-based trial with 963 children and adolescents, aged 10–13, from a socioeconomically disadvantaged community in Australia. Results from this study revealed significant reductions in anxiety and depressive symptomatology that were maintained at 12-month follow-up. Significant reductions in peer problems and conduct problems, along with significant improvements in self-esteem and the use of coping strategies, were also noted over time (Stopa et al., 2010).

Rodgers and Dunsmuir (2013) evaluated the program with 62 students aged 12 and 13. Participants attended three secondary schools in a socially disadvantaged catchment area in a major city in Ireland. Results showed that students receiving the FRIENDS program reported significant reductions in anxiety symptoms at post-test and 4-month follow-up in comparison to wait-list controls. Furthermore, these decreases in anxiety symptoms were also confirmed by parents' reports, compared to increased reports of anxiety from parents in the wait-list condition. When analyzing different subtypes of anxiety, Rodgers and Dunsmuir found that the FRIENDS program was also effective in reducing "separation anxiety" scores and maintaining this over a 4-month period. This study also found a negative correlation between anxiety symptoms and school adjustment.

Selective Studies of the FRIENDS Programs

Other studies have implemented the program at the selective level of prevention with youth "at-risk." Barrett, Moore, and Sonderegger (2000) conducted a pilot study with 21 female former-Yugoslavian youth. Results showed that those participants who received the FRIENDS program reported less internalizing symptoms than those in the wait-list condition. Social validity was also assessed, finding that participants were highly satisfied with the program. A subsequent study was conducted by Barrett, Sonderegger, and Sonderegger (2001) and evaluated the program with culturally diverse migrant groups of youth residing in Australia. Participants were 106 primary and 98 high school students differentiated by cultural origin (former-Yugoslavian, Chinese, and mixed-ethnic). Results showed that participants in the intervention condition exhibited lower levels of anxiety and demonstrated greater emotional resilience and a more positive future outlook than wait-list participants. Social validity was also evaluated and participants reported to be highly satisfied with the program

(Barrett et al., 2001). A third study was conducted with 320 children and adolescents, aged 6–19 years old, from culturally diverse migrant groups: former-Yugoslavian, Chinese and mixed-ethnic that had migrated to Australia. Consistent with previous findings, those who received the FRIENDS program exhibited significantly greater self-esteem, fewer internalizing symptoms, and a less pessimistic future outlook than wait-list participants (Barrett, Sonderegger, & Xenos, 2003). Interestingly, the program was found to be more effective in boosting self-esteem and reducing anxiety in former-Yugoslavian participants than for participants from Chinese backgrounds. Despite this there were still reductions in symptomology found in both groups.

Additionally, in Spain, Tortella-Feliu, Servera, Balle, and Fullana (2004) evaluated the FRIENDS program with 13 secondary school students, ages 11–15, who reported high levels of anxiety sensitivity. Results showed that, after the program, the intervention group showed a significant reduction in anxiety sensitivity and trait anxiety as measured by the Childhood Anxiety Sensitivity Index (CASI) and the State-Trait Inventory for Children (STAIC.T). Results were maintained at 3-month follow-up. Similarly, Liddle and Macmillan (2010) utilized the FRIENDS programs in students aged 9–14 years who were identified by classroom teachers as exhibiting anxious symptomology, low mood, and self-esteem. Results showed significant improvements in anxiety, mood, self-esteem and social skills at post-treatment and 4-month follow-up. Improved self-esteem and fewer internalizing symptoms were also found in Siu's (2007) study of FRIENDS in primary school children in Hong Kong.

In a recent randomized control trial, Cooley-Strickland, Griffin, Darney, Otte, and Ko (2011) evaluated the efficacy of FRIENDS in a sample of urban African-American youth exposed to community violence. Participants included 93 primary school students aged between 8 and 12 years. Results showed significant reductions in anxious symptomology posttreatment. Furthermore, the FRIENDS intervention group also demonstrated significant improvement in school achievement, levels of victimization from community violence, and frequency of life stressors when compared to waitlist controls.

Overall, research conducted on the FRIENDS programs around the world reports a positive effect on resilience and a preventative effect for anxiety and depression. Further research should focus on evaluating the program in other countries where the methods of delivery and educational context might be different (Stallard et al., 2008). In addition, cross-cultural adjustment should be completed in consultation with cultural experts worldwide in order to ensure the materials are as relevant are as possible.

Implementing the FRIENDS Programs in Diverse Youth Populations

The FRIENDS protocol is adapted into four developmentally sensitive programs: the Fun FRIENDS program (Barrett, 2012a, 2012d) for 4–7 year olds, FRIENDS for Life (Barrett, 2012b, 2012c) for 8–11 year olds, My Youth FRIENDS (Barrett,

2012e, 2012f) for 12–15 year olds, and the most recent Strong Not Tough (Barrett, 2012g, 2012h) for 16 years and older. As mentioned earlier, a unique aspect of the FRIENDS programs is their ability to be used in not only a clinical setting but also in classrooms and other health care settings. In working with diverse youth populations, the programs have been adapted into more than ten languages around the world (including Brazil, Canada, Finland, Hong Kong, Japan, Mexico, Portugal, the Netherlands, New Zealand, South Africa, Sweden, Singapore, Norway, Peru, Scotland, and the UK). From their adaptation of the FRIENDS program for youth of non-English speaking backgrounds, Sonderegger and Barrett (2004) highlighted several areas of adjustment for culturally diverse populations. It was noted that self-esteem is often a challenging concept to explain to youths from diverse cultures. Furthermore, understanding of self-talk may not be recognized in other cultures. Lastly, the need to adapt the application of problem-solving skills to culturally relevant and age-appropriate situations was highlighted. Adaptations based on these difficulties are further discussed in Fig. 5.2.

In application of the FRIENDS programs in urban African-American youth exposed to violence, Cooley-Strickland et al. (2011) made several adaptations including conducting many of the workbook tasks through discussion. Although this was noted as a limitation due to potential effects on skill retainment, it did accommodate for participants with low literacy skills. To increase the relevance and specificity of the FRIENDS program to inner-city youth, examples of common challenges and fears including gang violence, death, drugs, and poverty were also incorporated into delivery of the program (Cooley, Boyd, & Grados, 2004). Lastly, similar to other international versions of the programs, terms idiosyncratic to Australian culture were modified to examples more relevant to African-American culture. Similar modifications were also used in Siu's (2007) use of the FRIENDS for Life program in Chinese/Hong King primary school students.

The skills in the FRIENDS programs are sequential and building. As such the programs are adaptable in terms of activities and examples used for cultural meaningfulness. This is with the provision that the structure and sequence of the program are respected. Figure 5.2 provides an overview of recommendations for adapting the programs for culturally diverse populations.

Recent Innovations in Resilience Conceptualizations, Assessment, and Intervention

Over the past 50 years, there have been many changes in the definitions of resilience and resiliency. More recent explanations have focused on a range of protective factors, an individual–environment interaction, as well as the current authors' suggestion that resilience appears not just in the face of adversity but also in having the confidence to embrace positive opportunities. Furthermore, resilience is now being promoted as a lifelong learning process rather than an achievement of childhood.

Adaptations for culturally diverse populations	Purpose
Involving community elders	Involving community elders in the programs is important to ensure that strategies are implemented in a culturally meaningful (and appropriate) way. Incorporating cultural traditions and storylines can provide youths with a sense of belonging to one's culture and lead to empowerment. Furthermore, involving community elders can be a valuable asset in engaging youths and promoting resilient communities.
Incorporating grandparents	A strong relationship with extended family, in particular grandparents, is a key protective factor for youths. Involving grandparents in the program promotes connectedness with extended family.
Encourage participants to incorporate their culture	Firstly, diversity within group participants offers a rich opportunity for encouraging the practice of understanding and accepting individual differences. Furthermore, many cultures have traditions and stories of building resilience that may be beneficial to share and learn from.
Change self-esteem to confidence	Self-esteem is a very westernized term and may be difficult to portray to some individuals. Confidence is more of a universal term and can be used as a replacement to explain positive self-concept.
Understanding eye contact	In many cultures eye contact can be disrespectful or even menacing. In the FRIENDS program, early sessions discuss the importance of looking people in the eye to be brave. When using the programs in diverse populations this may not be appropriate.
Flexibility between groups regardless of age	Depending on each individual participant's needs, the programs can be used outside of their specific age range. The FRIENDS programs all involve similar socio-emotional skills but the delivery of activities is different depending on developmental stages (for example there is more coloring in and drawing in the younger programs, whereas older programs involve small group discussions and role plays). As such, activities from different programs can be blended if children would be better suited to a higher or lower developmental level.
Culturally appropriate examples	More recent editions of the FRIENDS programs have focused less on terms idiosyncratic to Australian culture. Despite this participants often benefit from incorporating examples of daily life relevant to them.

Fig. 5.2 Cultural adaptations to the FRIENDS programs for diverse populations

In considering this, recent innovations indicate the need for a developmental approach to understanding resilience (Fig. 5.3).

In addition to evolutions in the definition of resilience, there have also been recent movements towards a better understanding of its promotion. In particular, the key role of multiple attachment figures has been highlighted. An overwhelming majority of studies exploring parent–child interactions utilize maternal data only. Whilst, paternal roles may have been somewhat neglected, fathers appear to play a key role in the development of resilience. In a recent modeling study, maternal negative affect was found to lead to higher levels of child anxiety, whereas paternal negative affect led to lower levels of child anxiety (Pahl, Barrett, & Gullo, 2012). Differential impacts were also found in a Dutch study of the FRIENDS programs (Legerstee et al., 2008), where high levels of mother internalizing symptoms lead to better treatment outcomes; whilst, father psychopathology demonstrated no link. Furthermore, this relationship was only found in adolescents and not children highlighting that parent roles may differ across developmental stages. In a more detailed study of parental factors and their impact on treatment outcomes, Liber et al. (2008) found that maternal warmth, paternal rejection, anxiety and depressive symptoms led to less favorable treatment outcomes. Although preliminary, results to date highlight the importance of better understanding the role of both mothers and fathers in the development of psychopathology and the promotion of resilience. Further research is needed in exploring these factors across child gender and developmental stages to make better predictions.

Moreover, the role of grandparents and extended family in promoting resilience is a key issue of interest. Currently, the first and second authors are conducting research exploring the impact of incorporating grandparents and extended family into the programs on treatment outcomes. As this is also a recent innovation in the new editions of the FRIENDS protocols, it is believed that greater family support can extend the impact of resilience building. Additionally, the FRIENDS programs have suggested using a peer learning model in schools, both incorporating older students as mentors and positive adults to model adaptive coping for disadvantaged youths.

Resilience and epigenetics is a burgeoning field of research. Epigenetics is the study of "functional modifications to the genome without change in the DNA sequence" (Wu et al., 2013). Considering that structural changes occur to the epigenome in response to our experiences, including stress, it is logical that researchers would be interested in links with resilience and vulnerability. Although much research into epigenetic changes has explored stress in the early years, including maternal care and prenatal stress, recent research has evaluated changes in gene expression as a result of childhood abuse, suicide, and adolescent drug use (for a review, see Dudley, Li, Kobor, Kippin, & Bredy, 2011; Wu et al., 2013). Whilst any results in this area are in preliminary stages, greater understanding of the role that epigenetic modifications play in the trajectories of vulnerability and resilience provides an exciting prospect for researchers.

Despite a move towards promoting resilience, many "resilience-building" programs measure outcomes based purely on the reduction of symptomology. Although linked, resilience is not the opposite of risk or vulnerability. Recently, there has been

Life stage	Level	Factor
Early childhood	Family	At least one close attachment bond
		Nurturance and trust
		Bonded and harmonious family environment
		Involvement of extended family
	Community	Peer contact
		Community support
Childhood	Individual	Self-efficacy
(also includes above)		Internal locus of control
		Social and emotional skills (problem-solving skills, self-efficacy, communication skills)
		Independence
		Concentration
		Autonomy (females)
		Emotional expressiveness (males)
		Interests
		Ability to plan for the future
	Family	Encouragement for autonomy (females)
		Encouraged emotional expression (males)
	Community	Positive school experiences
		Positive adult role models
Adolescence	Individual	Achievement orientation
(also includes above)		Value set
		Positive self-concept
Adult	Individual	Optimism
(also includes above)		Positive attitudes towards ageing
		Proactive coping style
		Acceptance of emotions
	Community	Trusting interpersonal relationships
		Occupational success and security

Fig. 5.3 Resilience targets throughout development (adapted from Daniel & Wassell, 2002a, 2002b, 2002c)

a shift from deficit measures to measures evaluating resilience and protective factors. These include assessing confidence, self-esteem, prosocial behaviors, school adjustment, positive/proactive coping, and resilience. Resilience is a multidimensional, complex phenomenon and researchers have found significant difficulty in creating standard metrics (Prince-Embury, 2010). Psychometrically sound resilience measures are needed to gain a better understanding of resilience as well as move towards a twofold model of measuring resilience as an intervention outcome as well as the absence or reduction of symptomology.

An old Nigerian proverb states "It takes a whole village to raise a child," and that is part of the latest development of resilience. As mentioned earlier, we are increasingly becoming more aware of the impact of extended family and communities on child resilience. This awareness has been translated to practice with recognition of the importance of building not only resilient children, but also resilient families, resilient schools and resilient communities. In current application of the FRIENDS programs in schools, it is highly recommended that all teachers facilitating the program first complete the Strong Not Tough program (Barrett, 2012f, 2012g) for themselves. Additionally, in conducting the programs at Pathways Health and Research Centre in Brisbane, all parents (and where possible grandparents and other caregivers) of children and youths in the groups also complete the Strong Not Tough program in parallel to the child group. Metaphorically speaking, the announcement on every airline is to affix your own oxygen mask before helping children and others. It is the authors' belief that this also holds true for resilience; it is imperative for adults to learn resilience for themselves to model these skills. Parent completion of the program moves away from parenting skills, although there would be an expected secondary benefit on these, and focuses on parents building resilience for themselves. Whilst the impact of this approach has not been formally evaluated, it is the observation of the authors that at post-intervention parents have greater insight into the role they play in their children's resilience; appear more positive and proactive; and also that they benefit from the support of other parents in the group experiencing similar challenges.

As mentioned earlier, resilience is increasingly being considered as a lifelong process. With this knowledge, it is important to be aware of when further resilience truing may be required. High-risk periods of our life are periods of transition such as moving to a new school, moving house, adolescence, entering the workforce or changing jobs, leaving high school, birth of a first child, and retirement amongst many others. Prior to these periods, individuals can attend resilience programs in a preventative and proactive manner. Using resilience skills, life transitions are able to be addressed in a flexible manner throughout our lives.

Lastly, with the increasingly global focus of resilience promotion, there has been highlighted a need to explore new and varied modalities of treatment. A significant benefit of the FRIENDS protocol is their flexibility of delivery which has enabled the authors to apply these programs on a weekly basis throughout a school term, in 1 or 2 day workshops (for the adult program), or over an intensive format daily in school holidays. This allows for facilitators to adapt delivery to best suit each participant's individual needs including children and adolescents with difficulty travelling to attend weekly courses or those with special needs who require more time.

Although these differences have not yet been evaluated, there has been promising research of the benefits of intensive formats in treating anxious symptomology in youth (for an overview see the special series in Cognitive and Behavioral Practice; Albano, 2009). Additionally, alterations to the mode of delivery are being explored to cater for different families' needs with group, individual, bibliographic, school delivery, online delivery and video conferencing, just to mention a few. Recently, Pathways Health and Research Centre has been exploring methods of online delivery, with our FRIENDS resources website (Friends Resources, 2012). The website is a resource, support and community website for children, families, facilitators, and licensees to connect, learn and grow. A new revision for this website is the inclusion of interactive games and activities for families to reinforce skills from the program at home.

Future Research Directions and Summary

Through migration and relocation as well as the Internet and the rise of social media, the world is becoming a more global place. Cities in host countries are becoming more culturally diverse, calling for greater understanding of culturally meaningful definitions of resilience. Future research needs to create more specific guidelines for the adaptation of these programs in youths from diverse backgrounds as well as incorporating more measures of resilience in treatment outcome assessment. Due to the benefits from studies such as Durlak et al. (2011), further evaluation of the FRIENDS programs from a train the trainer perspective is key in encouraging greater uptake of socio-emotional learning programs in schools. These training evaluations would benefit from moving from an academic exercise to a fun, interactive process building resilience and positivity in children and adolescents. Furthermore, as well as incorporating resilience interventions into school environments, the FRIENDS protocols are ideal for after-school programs and community centers.

Whilst resilience research has made some progress from its westernized roots, there still remains a scarcity of resilience programs and assessments specifically developed for and tested in diverse populations. The FRIENDS programs, although developed in Australia, have been successfully adapted and utilized globally. Research has highlighted their efficacy in reducing anxious and depressive symptomology and promoting resilience in populations ranging from youths from non-English speaking backgrounds to those exposed to gang violence, as well as children in orphanages (Barrett et al., 2001; Cooley et al., 2004; Gallegos, Rodriguez, Gomez, Rabelo, & Gutierrez, 2012). Although cross-cultural examination of this protocol is still in its early stages, recent findings demonstrate support for its use in promoting resilience in diverse youth populations.

Please note the FRIENDS programs can only be used by trained professionals. If you are interested in facilitating any of the FRIENDS programs please contact Pathways Health and Research Centre at training@pathwayshrc.com.au within Australia and programs@pathwayshrc.com.au outside of Australia. Training is now available internationally as well as online. For more information, see our website http://www.pathwayshrc.com.au

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Chapter 6
Girls Leading Outward (GLO): A School-Based Leadership Intervention to Promote Resilience for At-Risk Middle School Girls

Cesalie T. Stepney, Gwyne W. White, Kristin Far, and Maurice J. Elias

Fostering Resilience in At-Risk Minority Youth

Early adolescence often involves significant increases in adjustment problems, including internalizing problems such as depression and anxiety (Karevold, Roysamb, Ystrom, & Mathiesen, 2009), delinquency, and substance use (Farrington, 2004). Further, youth during this time experience decreases in academic achievement (Dotterer, McHale, & Crouter, 2009; Fredricks & Eccles, 2002; Ryan & Patrick, 2001), which can negatively impact the trajectory of their life. Indeed, it has been estimated that by high school as many as 40–60 % of students become chronically disengaged from school (Klem & Connell, 2004). The transition from childhood to adolescence can be especially challenging for at-risk youth, and youth who do not successfully negotiate this critical transition are at increased risk for academic failure and school dropout, as well as serious forms of psychopathology (Ellis, Marsh, & Craven, 2009). Early adolescent girls, in particular, are at risk as there is evidence that girls tend to experience more adjustment difficulties than boys during this adolescent transition (Derose & Brooks-Gunn, 2006). For example, by age 15 the gender difference in depressive disorder is at the adult rate of 2:1 for girls to boys (Nolen-Hoeksema, 2002).

Furthermore, the risk for adjustment difficulties resulting from the adolescent transition may be even greater for African-American and Latina girls, who often live in communities beset by poverty, crime, and failing schools. Many African-American and Latino children are exposed to a disproportionate amount of risk. Research reveals that 35 % of African-American and 31 % Latino children live in poverty compared to 11 % of White children in the United States (Wight, Chau, & Aratani, 2011). Poverty has been linked to lower levels of cognitive functioning,

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social development, psychological adjustment, and self-esteem, and poor academic achievement (Cauce, Cruz, Corona, & Conger, 2011). Much of the existing research indicates that African-American and Latino youth face significant challenges and engage in many risky behaviors that can hinder positive development and well-being (Cauce et al., 2011). Data from the Center for Disease Control and Prevention's (CDC) Youth Behavior Surveillance System indicate that African-American and Latino youth were more likely than White youth to have been in and injured in a physical fight, threatened or injured with a weapon on school property, attempted suicide, and engaged in sexual intercourse (Centers for Disease Control and Prevention, 2012). Latinas have the highest teen pregnancy rate among major ethnic groups in the United States, and are at the highest risk for depression and suicide attempts (Umaña-Taylor, 2009; Zayas & Pilat, 2008). Latino youth also have the highest school dropout rate. In 2011, approximately 14 % of Latino youth dropped out of high school, which is about three times the rate among White youth (5 %) and double the rate among African-American youth (7 %) (U.S. Department of Education National Center for Education Statistics, 2013). Furthermore, ethnic or racial discrimination is also ubiquitous in the lives of many African-American and Latino children (Kuperminc, Jurkovic, & Casey, 2009; Utsey, Bolden, Lanier, & Williams, 2007). Discrimination experiences can be demeaning and degrading and are linked to poor mental health and educational outcomes (Luthar, 2006). Despite this great amount of risk, there are few prevention programs that specifically target Latina and African-American youth who are at risk for developing academic, behavioral, or social problems (Belgrave, 2002; Belgrave, Chase-Vaughn, Gray, Addison, & Cherry, 2000; Botvin, Griffin, & Ifill-Williams, 2001). Latina and African-American middle school girls are thus an important target for preventive interventions to help sustain them in school.

Given that ethnic and cultural minority groups can experience a disproportionate level of stressors, it is critical to evaluate the capacity for school-based programs to promote resilience (Cauce et al., 2011). The promotion of resilience, typically defined as "a pattern of positive adaptation in the context of past or present adversity" (Wright & Masten, 2005, p. 18), should be a core component of school-based prevention programming. Further, despite increasing diversity in the United States, culture is typically afforded a distal or indirect role in models of resilience. However, culture plays an important role in children's lives and diversity factors can relate to and influence resilience and the impact of interventions, particularly among ethnic minority youth (Clauss-Ehlers, 2004).

While the statistics are alarming and point to grave concerns for the development of African-American and Latino children and adolescents, the fact remains that many of these youth are developing quite well despite exposure to significant adversity in their social environments (Belgrave et al., 2000; Kuperminc et al., 2009). For instance, the majority of Latino youth, 78.6 %, do successfully complete high school (Reyes & Elias, 2011). A critical question that lies before researchers, educators, and policy makers is how to improve the health, well-being, and achievement of more African-American and Latino youth. A significant amount of research provides a rationale for the increase in use of after-school programs

(Fredricks & Eccles, 2006; Mahoney, Lord, & Carryl, 2005). Participation in a high-quality after-school program can help students improve academically and decrease delinquent behaviors (Fredricks & Eccles, 2002; Tierney, Grossman, & Resch, 1995; Walking Eagle, Miller, Cooc, LaFleur, & Reisner, 2009). After-school programs are of particular importance within high-risk communities as the arrests for juvenile crime peak between 2 p.m. and 6 p.m. on school days. Particularly, the effects on reducing juvenile delinquency were found to be strongest in programs that placed a high emphasis on social skills and character development (Gottfredson, Gerstenblith, Soulé, Womer, & Lu, 2004; Gottfredson, Gottfredson, Payne, & Gottfredson, 2005). Interventions consistent with resilience theoretical models and research on the importance of social, emotional, and character education program provide a promising means to guide school-based preventive interventions directed at least in part towards African-American and Latino adolescents (Reyes & Elias, 2011).

Schools are in a unique position to impact the positive development and resilience of young people because they are a public institution that reach nearly all youth and have the potential to provide ongoing support and access to resources and services (Billy et al., 2000). In particular, schools play an important role in supporting children by fostering both their social–emotional and their academic development (Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011). For students at risk for emotional and behavioral disorders, increasing the opportunities to succeed in school and life requires effective, preventive interventions designed to improve behavior and academic performance. Unfortunately, schools have been inundated with well-intentioned prevention and promotion programs that address diverse issues but are typically conducted as a series of short-term, fragmented initiatives without long-term follow-up. In their 2011 meta-analysis, Durlak et al. found that only 16 % of the studies collected information on academic achievement after the intervention, and that although all reviewed studies targeted the development of social and emotional skills, only 32 % assessed skills as an outcome (Durlak et al., 2011). Follow-up investigations are needed to confirm the durability of program impact. Additionally, much of the research concerning African-American and Latino students relies on deficit paradigms that emphasize stressors, school disengagement, academic underachievement, and behavior problems (Hipolito-Delgado & Lee, 2007; Smith, 2006; Villalba, 2007). While these issues may represent the reality for many African-American and Latino students, little research emphasizes these students' resiliency or strengths.

Recognizing the above-stated issues, Girls Leading Outward (GLO) is an after-school program that intends to produce sustainable positive change in the life trajectory of at-risk middle school girls, particularly ethnic minority girls. In particular, this program draws on ecological systems theory (Bronfenbrenner, 1979; Dalton, Elias, & Wandersman, 2007), a model in which an individual is embedded within multiple systems (e.g., school, family, neighborhood contexts) that each impacts the individual's mental health and behaviors. We are interested in determining what feasible changes can be affected at the school and individual level to systematically modify a key microsystem of girls, their attitudes, and social–emotional competencies, in a way that offsets other ecological forces that do not promote positive growth.

Specifically, this program aims to be an ecologically sensitive intervention targeting at-risk Latina and African-American girls with a focus on having sustained impact on their social–emotional and character development (SECD) by changing how they view themselves and their role as leaders in their school community. We believe that building students' skills in a context that provides them with a new perspective on themselves and their future, while fostering a sense of community, may be sufficiently powerful to create a positive trajectory for middle school girls as well as ultimately change the overall school environment. Through this in-school visibility, we believe that we can change the role that these students play in the school setting from "at-risk girls" to "student leaders," which can then become internalized and integrated into their own identity. This chapter will provide theories behind the program development, followed by a detailed description of the intervention.

The Importance of an Ecological Perspective of Resilience

Resilience extends beyond the concept of a fixed individual trait or quality (Luthar, 2006) and is best viewed as a multifaceted phenomenon that encompasses individual, relational, and contextual factors (Masten & Motti-Stefanidi, 2009). One major framework guiding resilience research is the ecological systems theory first posited by Urie Bronfenbrenner (1979), which proposes that multiple levels of children's ecologies influence each other, and in turn influence children's development. From such a perspective, appropriate, comprehensive, and developmentally sequenced preventive interventions can best be designed and implemented. This theory conceptualizes ecological contexts as consisting of a number of nested levels with varying degrees of proximity to the child, including the microsystem, exosystem, and macrosystem. The microsystem refers to the family environment that children and adults create and experience. The exosystem includes the neighborhood and community settings in which families and children live. The macrosystem refers to the underlying mainstream societal beliefs and values. This model was further elaborated on by Cicchetti and Toth (1997) who described an additional system of ontogenic development which includes the individual and his or her own developmental adaptation. Cicchetti and Toth (1997) hypothesized that these levels of the environment interact and transact with each other over time in shaping child development and adaptation. Because resilience is both an individual characteristic and a quality of an individual's environment that provides the resources necessary for positive adaption despite exposure adversity (Ungar et al., 2007), it becomes clear that school-based preventive interventions must be of wide scope if they are to be maximally and widely effective.

Keeping the ecological model in mind, in order for interventions for individuals to be sustainable, they must transform the social settings in which they are implemented in order to bring about effective change (Seidman, 2011; Tseng & Seidman, 2007). Such transformations involve changing a setting's organization, social

norms, and resources to improve the overall effectiveness of those settings. At their best, school settings provide youth with meaningful relationships with adults and peers, structured activities, access to resources, and opportunities for academic, social, and emotional learning, and identity development (Tseng & Seidman, 2007). Creating a positive school climate through school setting improvement gives students benefits systematically, thereby affecting numerous developmental outcomes (Brand, Felner, Shim, Seitsinger, & Dumas, 2003; Kreft, 1993).

Recent large-scale studies of after-school programs have yielded disappointing results, potentially because of a lack of attention to implementation details related to the connection of programs to their host settings (Hirsch, Deutsch, & DuBois, 2011). Using an ecological perspective, Hirsch et al. (2011) point out that contextual factors often contain the determining factors leading to the direction and strength of youth outcomes. Particularly in school-linked after-school centers (versus freestanding community-based centers that draw from many schools), student outcomes are linked to the relationship of the program to the peer context and school culture with which the after-school program has inevitable continuity. These authors (Hirsch et al., 2011) refer to the acronym, PARC, as containing key elements that contribute to outcomes: Program, Activity, Relationship, and Culture.

The acronym SAFE characterizes features of other after-school programs that are likely to have a range of positive effects: Sequenced, Active, Focused, and Explicit (Durlak & Weissberg, 2007). However, there are two important caveats to SAFE. While we know the potential of after-school programs is considerable, data show a structured curriculum is less likely to be feasible and appealing to youth than approaches that are problem-based. Problem-based approaches work despite fluctuating attendance, and feature strong youth empowerment and input (Durlak, Weissberg, & Pachan, 2010). Second, there is a critical need to think in terms of sustainability and scalability. For either to occur, consideration must be given to the reality of staff capacity. Specifically, more support is needed for structured interventions if they are to have lasting, tangible effects. Unfortunately, the research in this area still does not provide detailed guidance for program success.

PARC and SAFE have complementary programmatic concepts, which emphasize the importance of having a coherent program that recognizes the flexibility required in the after-school context. Programs must be engaging, empowering, active, and not didactic, and they must have a clear focus and explicit structure. In addition, youth must have an opportunity to have second-order change in the pattern of their relationships, ideally with peers but certainly with adults. Last, and perhaps most important, is need for the programs be embedded in cultural and school organizational contexts which lessens the possibility that they will be ignored. When at-risk youth are the program recipients, attention to this ecological reality becomes paramount: for second-order change, students' relationships to their contexts must be affected. As students enter adolescence, the importance of the school social atmosphere is particularly important as adolescents' expanding capacity for perspective-taking results in their increased awareness and concern with the opinions of others (Good & Adams, 2008). For their behavioral changes to be sustainable, their relationships with peers and adults must shift in positive directions.

We believe that this is the reason why many programs for at-risk youth that are well structured on the surface do not ultimately succeed in changing their status. True adherence to an ecological model requires changing the social ecology of the students and their perception by those with whom they interact often in school. However, most after-school programs consist of academic tutoring, academic enrichment, and art or athletics activities in individual class settings with minimal opportunity to build cohesion among students and skills over time. Further, most programs are rarely coordinated with daily school activities which impacts the potential generalization of skills learned after school to skills employed during the school day. Most after-school programs that address SECD and/or service-learning take a predominantly person-centered approach by aiming to build a student's individual skills without considering the ecological factors that may be helping or hindering success. It is important to consider the various systems that may help a child obtain SECD and empowerment, as well as what may inhibit a child from gaining these even with quality programming. Such an analysis can guide approaches to intervention at various ecological levels to support the child.

Social–Emotional and Character Development and Service-Learning

Research has shown that investment in academic instruction without complementary attention to social and emotional needs and character development may lead to failure in both areas (Adelman & Taylor, 2000). Lack of social–emotional competencies can cause students to become less connected to school as they progress, and this lack of connection can negatively affect their academic performance, behavior, and health (Blum & Libbey, 2004; Durlak & Weissberg, 2007). Problems of social–emotional functioning often occur in conjunction with academic problems (Barbarin, 2002). This relationship implies that social–emotional development is not separate from academic achievement; instead these areas are dynamic and interrelated and thus, in a school context, are necessary for children to develop and be successful (Klein, 2002). Children who do not obtain the skills needed to develop social–emotional competence are at greater risk of falling behind in school, and have greater chances of behavioral, emotional, academic, and social developmental problems (Aviles, Anderson, & Davila, 2006).

Concerted efforts to inculcate universal values such as compassion, mutual support, and community service are being reconceptualized as vital aspects of high-quality education in a context of globalization (Zins, Bloodworth, Weissberg, & Walberg, 2004). The adoption of programs that foster these values may be an effective method to help redress the unhealthy imbalance in the current public education system (Elias, 2009); a focus on personal values and their expression should provide a welcome change in the school environment. Importantly, these factors have international significance and implications; data show that those educational systems with the greatest consistent records of academic success are also those that focus on the character of their students (Elias, Tobias, & Friedlander, 2011).

One device that is becoming more common in SECD programs is including an element of service-learning or some form of community service. Students who participate in service-learning programs often have stronger ties to their schools, their peers, and their communities, better academic performance, and higher graduation rates than nonparticipants (Wilczenski & Coomey, 2007). Service-learning models have been shown to create a positive change in students by increasing their sense of empowerment, while allowing them to help their greater communities through the successful completion of community service projects (Kielsmeier, Root, Pernu, & Lyngstad, 2010). A number of studies show that students who participate in service-learning have a greater awareness of community needs, a stronger sense of civic responsibility, and more concern for social change than nonparticipants (Billig, 2000; Morgan & Streb, 2001).

While service-learning increases student engagement in the learning task, this effect in itself is apparently not sufficient to produce robust student outcomes. Rather, a whole variety of program design characteristics appear to be necessary to shape the impact. These characteristics include a high degree of student responsibility for the service, a high degree of student autonomy (students empowered to make decisions, solve problems, and so forth), a high degree of student choice (both in the selection of service to be performed and in the planning and the evaluation of the activity), a high degree of direct contact with the service recipient (who receives service of some duration, not short-term, one-shot service), and high-quality reflection activities (reflection that connects the experience with content, skills, and values). Additionally, research suggests that service-learning embedded in a pedagogical structure within the school curriculum yields the greatest positive effects (Wilczenski & Coomey, 2007). Well-prepared teachers who serve as active partners and knowledge mediators (but not as sole decision makers) are critical factors in determining student outcomes (Billig, 2000; Wilczenski & Coomey, 2007). When service-learning meets an authentic community need and includes meaningful planning, service, reflection, and celebration, it typically succeeds in engaging students in the learning task. Most studies attribute this outcome to having activated students' sense of purpose, motivation to learn, and changing students' relationships to peers and adults in their schools (Billig, 2000; Wilczenski & Coomey, 2007).

Service-learning and the way it changes participants' relationships with those in community settings can be a source of transformational second-order change for both the students and their participating schools. This is perhaps because of the potential service-learning has to improve participants' relationships with those in their educational community settings. When teachers evaluate a student's academic skills, they look for interpersonal skills, study skills, motivation, and engagement, all which are thought to be key components of academic competence (DiPerna, Volpe, & Elliott, 2002). Teacher preference (i.e., the degree to which a teacher positively or negatively perceives a specific student) has been found to predict adjustment of children in school. Longitudinal studies have found a relationship between low teacher preference and negative academic and social outcomes (Mercer & DeRosier, 2008). Because teachers influence the classroom climate, teacher preference can affect a student's general social acceptance as well as peer acceptance of specific social behaviors (e.g., aggressive and prosocial) (Chang et al., 2007; Mercer & DeRosier, 2008).

Teacher preference is based on a number of student behaviors related to academic competence, specifically those areas that the GLO program seeks to target. Teachers tend to dislike aggressive and disruptive students and prefer students who are high-achieving, hard-working, and display prosocial behavior (Babad, 1993; Birch & Ladd, 1998; Wentzel & Asher, 1995). Participation in school-based service-learning has the potential to increase teacher's positive perceptions of the student as well as student engagement. Additionally, promoting school and community engagement through service-learning may be particularly important in at-risk populations such as minorities and/or with academic and behaviorally at-risk youth (Lakin & Mahoney, 2006). Given the influence teachers have on the education climate and potential of the student (Chang et al., 2007; Mercer & DeRosier, 2008) and that this preference is often based on students' social–emotional skills (Babad, 1993; Birch & Ladd, 1998; Wentzel & Asher, 1995), the GLO program has the potential to activate positive regard towards our targeted at-risk girls. By affecting a positive change in the perceptions of teachers and peers towards adolescence at-risk, GLO aims to have a long-term, sustainable impact on these youth's academic and behavioral trajectories as it is impacting them not only at the individual level but also at the microsystemic level.

GLO: Girls Leading Outward

GLO is a school-based, SECD after-school program for at-risk adolescent girls. GLO focuses predominately on urban, African-American, and Latina students from low-income communities who are identified as at risk for psychosocial adjustment by their teachers. At risk is defined as girls who are feeling disconnected from their school environment, who are struggling academically, and/or who are exhibiting problem behaviors. Because the GLO program is a preventive/Tier 2 intervention, the students sought are not those already experiencing severe academic and/or behavioral issues. The goal of this 2-year intervention is to reach at-risk girls in the years immediately prior to their transition to high school, in the seventh and eighth grade. GLO is designed to create an alternative setting in the school in which at-risk girls change their negative behaviors, raise their status in the school, and foster an overall positive change in school climate through their service-leadership activities. The GLO intervention addresses relational aggression, problem behaviors, social skills, and leadership through an empowerment approach and attempts to anchor girls' growing resilience in a school environment progressively more supportive of the changes they are showing.

GLO integrates what has been learned about the ecological model, the early adolescent transition, the unique difficulties of middle school girls, the unique difficulties of Latinos and African-Americans, as well as SECD and service-learning. GLO differs from typical after-school programs in that it involves a weekly in-school component and support from local undergraduate students. Further, GLO asks participants to visibly engage in their academic environment via a school-based community service project. GLO is designed to strengthen SECD while calling key life

skills into action through community service. Key skills that are addressed in the program include problem solving, decision making, goal setting, emotion recognition and regulation, and assertiveness. These skills support middle school girls towards making better decisions, building positive and stable relationships with others, and gaining a more positive view of themselves. Once mastered, these competencies positively affect the critical transition into high school. Further, through the community service and mentoring components, the GLO program provides an opportunity to strengthen skills while attaining positive acknowledgement for completion of their goals and engagement in leadership activities. Since the community service and mentoring components are school-based, the school setting as a whole benefits from the activities of the girls and the girls also have the potential to now be viewed as leaders by other members of the school community. This service-learning and strength-based model emphasizes leadership, teamwork, and community, while providing both a sense of self-worth and empowerment. Not only is GLO designed to target the students in the program at an individual level by teaching them leadership skills, but GLO also aims to change their perception in their larger ecological context, with their peers and teachers at the school-level, by providing them the space to become leaders of their community.

GLO seeks to target youth who are at risk and have the potential to be positive opinion leaders based upon the theory that affecting the trajectory of these at-risk opinion leaders can have a transformative affect on their peers as well. Prior research on the diffusion of innovations and health behavior has shown a link between the behavior of opinion leaders and the behavior of the community they represent (Valente & Pumpuang, 2007). Thus, this project aims to create an in-school and after-school setting whereby at-risk girls can become better connected to their school environment, and in turn improves their overall perception of school climate, microsystemic relationships, and individual level academic outcomes. Since students' perceptions of the school environment are likely to impact their behavior at school (Bandura, 2001), it is critical to provide a support system for at-risk students. In our view, this kind of sophisticated, multilevel intervention is necessary to both instill and sustain a sense of resilience in girls whose skills, aspirations, and support systems are not preparing them for success in high school and beyond.

In its current form, the program is designed to be co-facilitated by an existing school staff member, either a teacher or guidance counselor, along with undergraduate students from a local university. In order to enable program sustainability, a member of the school staff (e.g., a teacher or school counselor) will be the lead facilitator of the after-school component of the program. Undergraduate facilitators will support the school staff facilitator during the after-school component as well as provide the lunch programming. This facilitator design came about through concerns about the sustainability of school-based interventions in an era in which school staff members are overtaxed. Typical project resources can be devoted to staffing a demonstration project, but the capacity to replicate the program structure does not exist once external project resources end. To this end, GLO is designed explicitly as a school–university partnership where middle school staff and college student volunteers act as co-facilitators to deliver the intervention. Utilizing community

resources, particularly university students, may be beneficial, as resources for providing mental health services in schools can be limited. Providing the additional support of student facilitators may help to ensure the feasibility of a program being implemented in a busy school setting where teachers or other school staff may not have the time to implement all parts of the intervention without support.

In addition, and also of strong significance in affecting the girls' mind-sets and aspirations, university undergraduate students have the potential to be viewed as closer in age mentors by the middle school students who nurture their identities as future college students. Prior interventions in primary and secondary schools have successfully used university students, including undergraduates and nursing students, to deliver programs in smoking prevention, emotional regulation, and reading tutoring (Cavell & Hughes, 2000; Cowen, Zax, & Laird, 1966; Miller, Gillespie, Billian, & Davel, 2001; Ritter, Barnett, Denny, & Albin, 2009). The undergraduate facilitators are able to serve as mentors to the GLO participants, as well as positive role models of women's leadership. We believe that this university partnership is practical and generalizable to other geographic locations as our target population of at-risk students is often located in or near cities typically containing 2- and 4-year colleges or universities.

Components of the GLO Program

Participants receive GLO programming weekly for approximately 28 weeks throughout the school year while in seventh grade and eighth grade, with sessions after school and during a lunch period. GLO ideally has 6–10 members per GLO group. Tables 6.1 and 6.2 provide an outline of the GLO after-school program topics

Table 6.1 Outline of GLO sessions for the seventh-grade curriculum (year 1)

Year 1: seventh grade		
Lesson number	Lesson topic	Main components
1	Welcome Session	• Introduction to the group • Explain group format and devise group norms/rules together ("GLO Culture") • Rapport building activity
2	Assessment Session (optional)	• Conduct baseline assessment • Rapport building activity, such as human knot or blind trust game
3	Leadership	• Introduce "Speak Out," where group members are asked to share one positive and one negative experience since the last session (*Note*: this occurs at the beginning of each session) • Define leadership and identify female leaders • Identify and reflect on leadership qualities that members already possess and which they want to work towards

(continued)

Table 6.1 (continued)

Year 1: seventh grade		
Lesson number	Lesson topic	Main components
4	Voice: BEST	• Introduce "BEST" as an acronym for good communication skills: Body Language, Eye Contact, Speech, and Tone of Voice • Role play BEST with partners in the group
5	Voice: FANSO	• Introduce "FANSO" as a strategy for stating one's opinion, while being respectful: First Acknowledge, Next Speak Out • Practice FANSO as a group
6	Voice: Assertiveness	• Define being assertive, in contrast to being passive or aggressive • Role play assertiveness skills as a group, with group leaders first providing a demonstration
7	Voice: Mini Project (*Note*: two sessions max)	• Members are asked to write a reflective essay on their Law of Life, or a value that is important to them • The first session should focus on explaining the task, to begin brainstorming, and start writing, with the members continuing to work on the essay for homework; the second session can allow more time for the members to work on their essays and/or begin sharing their essays with the group
8	Voice: Reflect on Mini Project	• Share essays with the group and reflect on the process • Members decide on group name
9	Heart: Identify Emotions	• Recognizing emotions—discussing when and why individuals have felt certain emotions • Emotion charades activity
10	Heart: Keep Calm	• Discussion on how to manage negative emotions • Introduce the Keep Calm technique: (1) Tell yourself to STOP; (2) Tell yourself to KEEP CALM; (3) Slow down your breathing with two long, deep breaths; (4) Praise yourself for a job well done
11	Heart: Connect Emotions with Thoughts and Behaviors	• Discussion on the relationship between emotions, thoughts, and behaviors
12	Mind: Identifying Aggression	• Discussion on interpreting peoples' intentions and how to gage what someone is feeling • Discussion of experiences of being victims or bystanders of aggression
13	Mind: FIGTESPN	• Linking leadership and problem solving • Introduce FIGTESPN: (1) Find the feelings, (2) Identify the problem, (3) Guide yourself with a goal, (4) Think of many possible solutions, (5) Envision consequences, (6) Select the best solution, (7) Plan and be prepared for pitfalls, (8) Notice what happened–anticipate future • Activities: problem solving scenarios
14	Team: Civic Engagement	• Recap FIGTESPN • Leadership and civic engagement discussion
15	Team: Leadership Project	*Note*: Project must be completed in time for there to still be three sessions before the end of the program
16	Reflection Session	• Thank girls for their work and hand out certificates • Reflect on pros and cons of the project
17	Assessment Session (optional)	• Conduct post-assessment
18	Celebration Session	• Reflect on what the girls got out of the program • Keepsake activity

Table 6.2 Outline of GLO sessions for the eighth-grade curriculum (year 2)

Year 2: eighth grade		
Lesson number	Lesson topic	Main components
1	Welcome Session	• Review GLO and discuss differences between year 1 and year 2 • Devise group norms/rules together ("GLO Culture") • Trust exercises
2	Assessment (optional) and Leadership Session	• Complete baseline assessment • Discuss important leadership qualities and their relevance in GLO and high school
3	Review from Year 1: BEST, FANSO, and Assertiveness	• Review BEST, FANSO, and Assertiveness • Practice with role plays
4	Voice: Assertive Language	• Review assertiveness and practice • Introduce IFA: (1) Identify the problem, (2) Say how you feel, (3) Ask for a change
5	Voice: Mini Project	• Laws of Life Activity (*Note*: up to two sessions)
6	Heart: Relaxation and Increasing our Positive Emotions	• Discussion on positive outlooks and managing their negative feelings • Practice relaxation and mindfulness activities
7	Heart: Communicating How You Feel to Others	• Review different techniques that one can use to avoid getting upset in an argument • I-statements activity
8	Team/Mind: Thinking about Relational Aggression	• Review BEST, FANSO, Keep Calm, and I statements • Ask the girls to discuss examples of the above by going over example scenarios
9	Team: Relationship Rules 1	• Discussion on steps to avoid engaging in relational aggression, such as not attacking someone's character
10	Team: Relationship Rules 2	• Discussion with girls about being in uncomfortable situations
11	Team: Civic Engagement	• Recap FIGTESPN and its relationship to keep calm and FANSO • Guest speaker discussion of civic engagement
12	Team: Leadership Project	• *Note*: Project must be completed in time for there to still be three sessions before the end of the program
13	Reflection Session	• Thank girls for their time in GLO • Reflect on GLO experience
14	Assessment Session (optional)	• Conduct post-assessment
15	Celebration Session	• Hand out certificates and keepsake activity

for the seventh- and eighth-grade curriculums, respectively. The GLO curriculum is designed to focus on four main components of leadership: Voice, Heart, Mind, and Team. The Voice sessions consist of communication skill building. The Heart sessions focus on emotion recognition and regulation. The Mind sessions focus primarily on problem solving skills. The Team sessions consist of the civic engagement and leadership project portion of the program. Assessments are integrated into program delivery in order to measure change systematically in the participants.

It is recommended that this assessment occur during the second session and again following completion of the service-learning project (see Tables 6.1 and 6.2). Typical assessments have included measures of students' sense of mastery and perseverance. It may also be useful to have teachers rate students on their social–emotional competencies in order to assess for changes observed in the school environment.

Each after-school session is designed to be approximately 60 min long and includes skills training and a skills reinforcing activity, with a goal of ultimately utilizing the skills they learn for an end-of-year community service project. The duration of the lunch session varies depending on the school bell schedule but tends to run approximately 20–30 min. The curriculum for the first year focuses on building leadership skills, such as effectively communicating ideas and opinions to others, and becoming involved with community service within the school. The curriculum for the second year focuses on maintaining and utilizing the skills learned during the seventh-grade year, as well as mentoring the new seventh-grade GLO girls. Both seventh and eighth graders will engage in various community service-leadership projects within the school setting. Overall, GLO involves five structural elements: after-school programming, service-learning, lunch meetings, in-school support, and undergraduate mentors.

After-school programming. GLO is structured primarily as an after-school program. After-school programs provide schools the opportunity to support students in ways not possible during the school day. In high-risk communities, often times the typical dose of school support is simply not enough. After-school programs act as an important supplement and an alternative setting for establishing positive relationships and attitudes. The after-school sessions of GLO are run by the school staff member along with undergraduate co-facilitators. Each after-school session is approximately 60 min long and includes the following three elements: (1) skills training, (2) a skills reinforcing activity, and (3) a service-learning project. Each after-school session of GLO commences with "Speak Out" where the group members and facilitators are asked to briefly check in about one good thing and one bad thing they have experienced over the week since that last group session. Speak Out serves as an opportunity for all group members to get to know each other better, as well as a way for facilitators to gage the overall mood of the group members before beginning the days' activities. Further, facilitators are able to build relationships with the participants by sharing relatable experiences from their own lives while modeling what are appropriate events to share with the group.

Following Speak Out, the session focuses on teaching and practicing one SECD skill, such as problem solving, followed by a reinforcing group activity. Each lesson builds off of the prior session, with a quick review of the prior week before introducing the new skill. The lessons are meant to be interactive and often involve role plays to get the girls on their feet and putting the skills into practice. The group activity at the end of the session is meant to reflect the SECD skill while fostering team building and bonding among the participants and the facilitators. Over the course of about 12 weeks, the group will have worked on defining what leadership means to them and learning some of the key leadership skills, including communication, assertiveness, and problem solving.

Service-learning. A key component of the GLO program is a service-learning project that is introduced early on in the program and brought to fruition during the later half of the school year once basic SECD skills have been covered. The purpose of the service-learning is to increase the group's feeling of empowerment, and to encourage the girls to fully utilize their leadership abilities. The goal is to foster a social process by which these at-risk girls can interact with each other and the larger school setting in positive ways. Successful completion of the service-learning project has the potential to affect both the girls' perceptions of the school climate and the school setting's perception of them. The SECD skills learned throughout are meant to lay the foundation for them designing and implementing a service project of their choosing. They are asked to brainstorm different possible projects and come up with a feasible plan for implementing it. During the course of planning, they present their project idea to the school principal or any other staff that they would need approval from. This step allows them to practice their communication and problem solving skills they learned earlier in the program. It also reinforces to the school administration that these girls are becoming leaders in the larger school community.

In our experience, the service-learning projects that are the most successful are those that involve other members of the school community, and the more other students that are involved the better. Examples of past service-learning projects have included (a) a mural completed by the whole seventh-grade class over a series of lunch periods focused on being yourself that was hung up in the school cafeteria, (b) a campaign raising awareness of individuality with all seventh-grade students writing brief stories about themselves in exchange for dog tags that read, "Everyone Has a Story," and these stories were then shared with the school staff, and (c) a week of service where the GLO girls visited a nursing home, raised money for an animal shelter by having a lemonade sale, culminating in the GLO girls teaching the other seventh-grade girls some of the key GLO skills and then holding a big sister/little sister event where all of the seventh-grade girls taught these skills to the second-grade girls. These projects served as a way for the GLO girls to demonstrate the skills they had learned not only to themselves but also to the larger school community and greatly enhanced the GLO girls' leadership roles and visibility.

Lunch sessions. Another component of the weekly program is the school lunch sessions. The school lunch sessions are supervised by the university undergraduate facilitators and typically occur on the same day as the after-school session, which also helps to serve as a reminder that the after-school session will be occurring. Each session occurs during the regularly scheduled lunch period and includes the following two elements: (1) review of the prior after-school session and (2) a skills reinforcing activity that will in turn promote GLO culture within the larger school community. The lunch component reflects literature and our experience regarding the need to ensure continuity between after-school programming and the school culture and context to create a coherent ecological connection for students (Hirsch et al., 2011). It is important to create a method for students to translate what they learn after-school into in-school success. The lunch sessions also serve to provide visibility of the GLO girls in the larger community. Many of the activities

involve creating posters that will be hung up around the school to promote the particular SECD skill that was learned the prior week. Depending on the set up of the lunch meeting with the logistics of a particular school, the session may be occurring in the cafeteria at a designated GLO table with the other students then being able to identify who is involved in the program. In the past, groups have decorated a GLO tablecloth with their names and what is important to them that is used at every lunch session to designate the GLO table.

In-school support. Through our experience running the program over the past 10 years, we have learned that it is important to have a member of the school staff take a lead in facilitating the program. This helps the school to take ownership of the program, which we see as essential for sustainability once program developers are no longer in the picture. Having a school staff member be the lead facilitator also allows for more flexibility in the program, such as last minute scheduling changes or timely modifications to the curriculum, as the school staff member often has a better sense of what is going on in the school than facilitators from the outside. In addition, in-school support, along with the lunch meetings, provides visibility, which leads to norm changes and goal/aspiration changes on the part of the group members, as well as changes in respect for these girls and changes in their self-respect. This is all essential for climate change, which is strongly linked to levels of respect in the school.

Undergraduate mentors. We believe that the undergraduate co-facilitators serve not only as a support for the school staff member who is facilitating the program but also as an important mentoring role for the GLO participants. In the current implementation of the program, undergraduates are selected through an interview process based on their past experience in working with youth and prior leadership experiences. They receive training on delivering the program curriculum, with particular emphasis on how to effectively facilitate groups and work with middle school-aged students. They also receive ongoing supervision to address issues as they arise and to provide ongoing feedback. The undergraduates are primarily responsible for leading the lunch session, ideally in pairs, and they also participate in the after-school program. How much they facilitate the after-school program material can vary from school to school, but in our experience having the undergraduates assist in delivering sections of the curriculum is useful as the GLO participants begin to look up to them as examples of what it means to be leader. The undergraduates model appropriate behavior and responses, and over time we begin to see the GLO participants emulate this. The undergraduates also serve as a gateway to discussions about the future for the girls and help them to begin to envision college as part of that future. The participants ask a lot of questions to the undergraduates about what college is like and seemed fascinated by this prospect. We believe that involving these older peer role models is a key component of the GLO intervention, and that it is also feasible as any local 2- or 4-year college can serve as a source of students. In areas where college students are less accessible, we could envision high school seniors fulfilling a similar role with training and supervision, as they would also be able to provide a model of future leadership for the girls.

Sample GLO Lessons

Voice

Two skill-building lessons that form the foundation for much of the GLO program focus on communication skills. During the fourth session, students are introduced to the concept of "BEST" which teaches the basics of how to present oneself when communicating with other people. It is emphasized that it is important to have good body posture, make good eye contact, use good speech, and use a good tone of voice when speaking, and BEST serves as an acronym and reminder for these four elements of communication (Elias & Bruene, 2005). During this session, facilitators role play poor and good use of BEST, and the girls are asked to practice using these skills with a partner as well as with the larger group. They are also encouraged to practice this technique during the week and to report back during the following session.

In the subsequent session, following a review of "BEST," communication skills are expanded upon with a discussion of the importance of making sure the person you are talking to know you are listening to them. To introduce this concept, the acronym "FANSO" is used, which stands for "First Acknowledge Next Speak Out." This emphasizes that instead of blurting out your opinion when speaking with someone, especially when you disagree, it is first important to recognize what he or she said and then state your own opinion. One example that is given to participants is the following: if they are discussing service project ideas with another group member and they don't like her idea, instead of saying "That's a dumb idea!" they could say, "I think it is good that you have ideas about this, but I don't agree." Group facilitators model use of the FANSO skill through role plays and participants are asked to point out what works well and does not work well in these role plays. The end of group activity asks the girls to give their opinion on a variety of topics, such as "What is your opinion about school uniforms?" or "What is your opinion on *X celebrity*?," and to have a dialogue among the group members.

BEST and FANSO carry through into future sessions as they are not only reviewed in future lessons, but the girls are also asked to make posters of these skill acronyms to hang up during the group sessions as a reminder as well as throughout the school for other students to see. When group facilitators notice the students using these skills, they should reinforce them, and when they notice that they are not using them but could benefit from them, they should encourage the students to use BEST and FANSO. These become particularly relevant as the group is planning for their service-learning project.

Heart

Following the foundation of communication skills, the program shifts to focus on emotion regulation strategies. First, the group members are asked to think of experiences where they have experienced a given emotion (assigned by drawing emotion cards randomly), explain to the group how they physically experienced that emotion

(e.g., body tightness, heart beating), and what they did to cope with the feeling if it was a negative feeling. Participants then practice recognizing emotions in other people through an emotion charades game, in which they take turns acting out and guessing emotion words. This game emphasizes how we can use body language and facial expressions to get clues to how others are feeling, but also points out that it can sometimes be difficult to know for sure unless you ask them directly.

In the subsequent lesson, the facilitators lead a discussion on the importance of managing your emotions and ways to cope with negative feelings. The concept of "KEEP CALM," taken from the evidence-based *Social Decision Making* program (Elias & Bruene, 2005), is introduced with participants encouraged to use the following steps when they encounter a situation and feel their emotions begin to escalate: (1) Tell yourself to STOP, (2) Tell yourself to KEEP CALM, (3) Slow down your breathing with two long, deep breaths, and (4) Praise yourself for a job well done. The girls are encouraged to practice this skill in the session and over the next week; facilitators check in during the following lunch and after-school session.

Mind

The primary lesson in the Mind portion of the curriculum focuses on problem solving skills. Facilitators emphasize that problem solving and being able to make smart and thought-out decision is an essential aspect of leadership. The acronym "FIGTESPN," also from *Social Decision Making* (Elias & Bruene, 2005), is introduced as an eight-step plan for problem solving: (1) Find the feeling, (2) Identify the problem, (3) Guide yourself with a goal, (4) Think of many possible solutions, (5) Envision consequences, (6) Select the best solution, (7) Plan and be prepared for pitfalls, and (8) Notice what happened and anticipate the future. The group then practices problem solving by going through one to two situations that they have generated, such as not being invited to a friend's party or having a teacher that you don't get along with in school and that gave you a bad grade. Throughout this lesson, facilitators remind group members to use prior communication and emotion regulation skills, such as BEST, FANSO, and KEEP CALM, when working through their possible solution. This problem solving method becomes important in the planning process of the service-learning project, and it helps the group members strategize how to implement their project.

Lessons Learned: Success Stories and Problems Encountered in Implementation

Over the past several years, we have had two primary sites implementing the GLO program. From 2009 to 2013, GLO was implemented in a middle school that contained grades 4–8. Graduate students from our team along with undergraduate co-facilitators facilitated this program. School staff was minimally involved. When the program began, there was only an after-school component. While the program was

qualitatively successful, we noticed that not having a school staff member involved and only being there during after-school time left the program being less connected with the rest of the school and did not provide as great an opportunity for the participants to demonstrate their leadership to the wider school community. At this point, lunch sessions were added into the weekly programming and we began to notice that the program became more visible to other members of the school environment. The girls designed posters and worked on other projects during the lunch period, which drew attention from other students in their grade who were curious about what they were working on. It also improved visibility to school staff as the group facilitators were around the school building more frequently.

While we believed this was a good start to helping GLO participants become viewed as leaders by themselves and others, having our team be the primary administrators of the program was not sufficient to cause system-wide change. Therefore, beginning in 2012, a different version of GLO was also being implemented in another middle school where the school guidance counselor was trained by our team to be the lead facilitator, along with two undergraduate co-facilitators. Overall, we found that by having a facilitator serve as in-school support and who was more aware of the interworking of the school, the program ran more smoothly as she was able to incorporate her knowledge of what was going on with the school into the implementation of the GLO program. For example, the guidance counselors were able to more easily check in with girls who had not been coming to the program to find out why and in after a couple of cases were able to switch the day of the program so that it did not conflict with other activities the girls were participating in. They also were more cognizant of what aspects of the program would and would not be acceptable to school administration and were able to have discussions with administrations more easily than purely outside facilitators.

The GLO program at this school will continue into the current academic year, 2013–2014 and, thus, we will be able to observe if there are any qualitative differences in how the eighth-grade program is implemented by a school staff member. One primary problem we have observed at past sites over the course of the program is attrition from the seventh- to eighth-grade year. While attrition is to be expected, we are hoping that having this school staff member in place will help to buffer against this.

Drawing off of our experience of implementing GLO in these two different middle school settings, we have noticed a number of key themes emerge of what makes the group more or less successful. For example, creating a GLO culture where the girls define leadership for themselves and set up ground rules for the group is essential early on in the program. Having the group members participate in setting ground rules builds the foundation for future sessions. This supportive culture allows for the girls to let their guards down, not have to worry about judgment, and feel like they are welcomed to express their thoughts and feelings. In addition, the full participation of the group facilitators also helps to assist in setting up a place of discussion rather than something more typical of what they normally experience during the school day. This helps with group participation, as the girls seemed to appreciate the activities more seeing that everyone contributes to them. This not only builds rapport but also gives the girls the sense of equality and likeness. Having activities that involved the entire group or one to which everyone can relate strengthens the bond

within the group. It seems as though these activities give the girls a common interest or help them become better aware of themselves. Especially when it came time for the year-end service project, the girls' excitement shined as they diligently worked towards their service project.

As the girls became more comfortable with the GLO program, their interest and desire to participate often influenced less-interested peers. This is a worthwhile tool to have and usually will work well in groups which have established a great bond with one another. Furthermore, once the girls were more comfortable sharing and expressing their opinions, it was particularly effective to discuss topics of which they related to in life, such as teachers underestimating students or physical and emotional aggression. In several lunch and after-school sessions, GLO facilitators brought up certain topics and prompted the girls to list out the pros and cons and any potential consequences of their actions. These brainstorming sessions seemed to have assisted in presenting the girls with a different perspective of common problems and something real in their life into perspective.

In any intervention, there are possible barriers to change that it is important to be aware of. As with most after-school programs, the early sessions are often the most difficult because the participants, and often the facilitators, do not know what to expect. Getting the program started can be a challenge especially if there is not a school staff member on site to help facilitate getting permission slips back and figuring out logistics of running the program. Without much assistance from school personnel, this process can be very difficult, and thus, having a school staff member who is invested is essential. There were also many times when other extracurricular activities interfered with GLO and girls were forced to choose one or the other. Thus, this led to low attendance and inconsistency within the group. As GLO is only once per week, it can be useful to have a structured agreement put into place that allows girls to participate in GLO on one day and another extracurricular on the other days of the week. As constant absences diminish the effectiveness of GLO and seem to disrupt the group when certain students do return, figuring out a way to reduce this disruption with school administration is important to consider early in program implementation.

In addition, we have found that it is important to screen students with a brief interview discussion in order to gage interest and to become aware of any preexisting conflicts among potential group members. We have come to recognize the importance of having GLO consistently throughout the year as well as continuity into the second year of the program by starting up as early as possible in the eighth-grade school year. While there may be forces that prevent this beyond the control of the group facilitators, it is important to strive for this as much as possible.

During the early sessions, facilitators are often dealing with issues of lack of active participation or lack of focus by many students who are either shy or insecure or just lack concentration skills and are not yet fully engaged. This can lead to multiple individuals trying to speak at once or side conversations, which then require more frequent redirection. There may also be participants in the group who previously did not get along with other group members, which may lead to early issues with group dynamics. Early rapport building and team building activities, such the human knot and working on the tablecloth at lunch, seem to work well in breaking

down initial barriers and helping the girls feel more comfortable with each other. Having frank discussions about group dynamics can also be beneficial. Conflicts of preconceived notions of leadership and how to solve problems may also arise, with some participants thinking physical aggression is an acceptable way to solve problems and stand up for oneself while others believe that this is unacceptable. There may be conflicts in what GLO encourages versus what is taught at home or the school culture at large. GLO is a place to express these differing opinions and to weigh the pros and cons of each approach.

Overall, we have observed that as the sessions progress, there is a better sense of group cohesion. The girls appreciate the structure that allows them to express their thoughts and feelings safely, which leads them to gradually display more respect and participation, taking turns speaking to the group and also giving valuable recaps to girls who were absent from previous sessions. Role playing and talking about how these lessons relate to their own lives help with better comprehension of GLO lessons and skills. By the end of the year, there is a stronger bond among the group and facilitators observe participants more readily using their skills from BEST and FANSO to communicate with one another and other school personnel. This is especially evident when the GLO groups have to deliver their year-end project proposal to their principal. The girls were more respectful and empathic towards each other and seemed to express their opinions and ideas effectively to their peers, even in times of difference and incongruity.

Initial Research Findings on the Benefits of GLO

Even though GLO has been implemented for over a decade, systematic research on its effectiveness is still in its early stages. However, we believe the results to be promising. Members of our research team are interested in understanding the impact of GLO on the participants' self-rated self-concept (Piers & Harris, 1984), sense of mastery (RSCA Manual, Prince-Embury, 2007), and perseverance (Duckworth & Quinn, 2009), as well as their social–emotional and academic competence (Gresham & Elliott, 1990; LeBuffe, Shapiro, & Naglieri, 2009) as rated by their teachers. Results from the 2009–2010 cohort suggest that GLO increased the girls' overall self-concept score and their sense of mastery, with the more introverted/shy girls in the groups showing greater positive changes (Narkus, Hamed, Reyes, Moceri, & Alphonse, 2011). In addition, GLO participants who showed improvements in teacher-rated social–emotional competence showed gains in self-rated optimism (Hamed, 2012). Initial examination of the 2010–2011 and 2011–2012 seventh-grade cohorts looking at the relationship between baseline characteristics and attrition found that low levels of anxiety and greater self-rated perseverance at the beginning of the program were predictive of participants not dropping out of the program by the end of the school year (Stepney, White, Yerramilli, Zigelboym, & Elias, 2013). Future studies will examine the impact of GLO relative to grade-matched control peers over the course of both the seventh- and eighth-grade years.

Future Directions and Practice Considerations

Reflecting on the lessons learned and initial findings from the GLO intervention, a number of implications for intervention programs in general can be deduced. The GLO framework of leadership, empowerment, and service for the purpose of promoting resilience can be a viable alternative to remediation-focused groups with at-risk youth. Targeting interventions at the needs of the specific population of interest is essential for effecting change, and the GLO framework allows for this as well. Further, thinking beyond simply intervening at the individual level, interventions that also aim to impact individuals from a more systematic approach have a greater chance of sustainability and longer-term impact once program developers are no longer the ones implementing the program. This process occurs through integration into an ongoing infrastructure in which youth have regular interactions, like in school and during after-school programs. The process of building resilience in youth must include ways of providing them with ongoing support as their new skills become part of a change in their identity towards being assets to their classmates and school.

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Chapter 7
Promoting Resilience Through Executive Function Training for Homeless and Highly Mobile Preschoolers

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Resilience is a dynamic, multifaceted, and inferential concept that refers generally to the capacity of a system for successful adaptation in the context of significant adversity or challenges. In human development, positive adaptation can be defined broadly in terms of function in many domains (e.g., doing well in all the ways expected for a person of a given age, culture, and time in history, including physical, mental, social, school, or work expectations) or more narrowly in a single domain (e.g., academic achievement or getting along with peers). In this chapter we describe a new intervention program designed to foster school readiness in homeless and highly mobile (HHM) children, with the goal of promoting their *academic resilience*. We hope to foster resilience in these children by promoting their executive function (EF) skills during the preschool period, which is believed to be an important window of opportunity for growth and change in the neurocognitive processes that support learning and school readiness.

Homelessness and residential instability in families with children living in poverty are issues of growing concern in the United States as well as many other countries of the world (Masten, 2012; Miller, 2011; National Research Council, 2010). Homelessness is a housing status variable associated with high levels of cumulative adversity in families, including extreme poverty, family violence, residential instability, and hunger, among other risks to health and development. Thus, it is not a surprise to find that HHM children have elevated risk for numerous problems in health and development, including school failure (Samuels, Shinn, & Buckner, 2010). Ideally, homelessness would be completely prevented. Instead, persistent poverty, even in wealthy countries such as the United States, and the recent global economic crisis, along with widespread shortages of affordable housing, have increased the

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problem of homelessness in families in recent years. During the 2010–2011 school year, the number of homeless students counted by the U.S. Department of Education rose above one million (National Center for Homeless Education, 2012).

Many urban school districts, including the districts near the University of Minnesota, have substantial numbers of children identified as HHM by government guidelines. Recent data clearly show significant achievement gaps between these children and other low-income children, as well as more advantaged children, across the school years (Masten, 2012). Many stakeholders, including parents, educators, policy makers, and eventually the young people themselves, are concerned about these gaps because of the limited opportunities (e.g., job prospects) associated with poor academic achievement. The future of these children, our communities, and society depends on the success of these children. Yet, it is challenging to promote school success in mobile or homeless students.

In this chapter, we describe the origins and evolution of a new preventative intervention program under development that targets executive function skills in very high-risk, HHM preschool children, with the goal of promoting academic resilience. In the first part of the chapter, we provide a brief overview of risk and resilience in HHM children, with a specific focus on academic skills. We also describe the literature implicating executive function (EF) skills as a promising intervention target, particularly during the preschool years. In the second part of the chapter, we describe the specific context and background for our project, which grew out of community–university partnerships focused on addressing the needs of homeless and similar high-risk, mobile children. In these first two sections, we delineate how our project was shaped both by research on risk and resilience in regard to EF and school success and by the local context and our experiences in the community.

In the third part of this chapter, we describe the "Ready? Set. Go!" (RSG) intervention as it was conceived initially and how it has evolved through a deliberately iterative process, by implementing small scale trials, evaluating results, and refining the program accordingly. We describe the theory of change that guided its development, the collaborative team that implemented the work, the components of the intervention under development, and progress to date. Subsequent sections outline the lessons learned through the iterative process and the challenges we faced along the way. In the concluding section we describe future plans.

Overview of Risk and Resilience in Homeless Children

The focus and design of our program was informed by the literature on homeless families and children, as well as the evidence of the role of EF in school readiness, both in general and specifically for HHM children. We targeted change in EF skills because there was good evidence that these skills are malleable. Their importance in school success and the fact that they can be increased through training make EF skills a promising intervention target.

Families and Homelessness

The number of children affected by poverty in the United States is staggering, with 13 million US children living in poverty at the time of the 2007 Census. Many of the most disadvantaged children are also faced with homelessness and high mobility as their families struggle to secure stable housing. At one time, homelessness was most typically associated with single adults who often had mental health or substance use problems. However, over the past quarter century the picture shifted due to changing housing policies and economic recession (Samuels et al., 2010). There was a 20 % increase in the number of homeless families from 2007 to 2010, according to the U.S. Department of Housing and Urban Development (HUD, 2010).

A recent statewide survey in Minnesota provides an in-depth look at this issue in Minnesota. The Amherst H. Wilder Foundation has conducted a statewide survey of homelessness in emergency shelters and on the streets on a single night every 3 years since 1985. Data from the 2012 survey indicates that families are the fastest growing segment of the homeless population, with their numbers tripling from 1991 to 2012 (Wilder Foundation, 2013). This 2012 survey found that approximately 3,900 children reside in emergency homeless shelters each night in Minnesota, totaling 14,120 whose families utilize these shelters per year. In fact, the majority of shelter residents (59 %) are minor children (Wilder Foundation, 2013).

Homelessness and Academic Achievement

Homeless and other highly mobile low-income students face myriad challenges to academic success including high academic mobility (e.g., switching schools in the middle of the school year), isolation from peers (e.g., moving too frequently to develop enduring peer relationships), fragmented services, and stigma attached to the issue of homelessness (Miller, 2011). These children often lack bonds with teachers, friends, relatives, and schools due to their high mobility (Rafferty, Shinn, & Weitzman, 2004). Moreover, the stress of homelessness on the whole family could affect the fundamental capacities for learning in children, including memory and concentration (Obradović et al., 2009).

Using data from students in a large, urban school district, investigators from our team in collaboration with district researchers have compared achievement test scores over time on a nationally standardized test across levels of socioeconomic risk. Risk was indexed by status as HHM or qualified for free/reduced meals (both by Federal guidelines) at any time during the period under study. Each year from third to eighth grade, students in the district are tested on the same test designed to assess growth over time in achievement. In two studies to date, HHM students were found to have significantly worse average reading and math achievement scores than other low-income students, who in turn scored much below the national averages on reading and math (Cutuli et al., 2013; Obradović et al., 2009). These gaps

were evident at the time of the first test administration in third grade and persisted or worsened. The pattern was congruent with a continuum of risk. The data also were alarming because of the high proportion of students who were identified cumulatively as HHM in this district, about 14 % in the most recent study (Cutuli et al., 2013). Additionally, results indicated that growth in math (but not reading) slowed in the year following identification as HHM, suggesting acute as well as chronic risk to learning (Cutuli et al., 2013). These data indicated that HHM students had the highest overall academic risk, significantly higher than their low-income but housed peers.

Academic Resilience in HHM Children

These gaps are concerning; however, there is another way to view the data that reveals a different story. One can examine individual students' performance over time instead of group average scores (see Cutuli et al., 2013). Individual growth curves in achievement scores reveal striking variability in the performance of HHM children. Although the average math and reading scores for HHM children were very low, a considerable portion (45 %) of individuals had scores within or above the average range on these tests (within a standard deviation of the national mean or better; Cutuli et al., 2013). These data suggest academic resilience for a substantial subgroup of HHM children, despite their adverse circumstances and challenges associated with homelessness. This variability could not be fully explained by student characteristics such as ethnicity, English language learning, school attendance, or special education status, although these variables were related to achievement. For example, HHM students have lower attendance, but attendance only explains a small proportion of the variability in the achievement among these students. There is good reason to believe that individual differences in EF may play a substantial role in this variability (e.g., Buckner, Mezzacappa, & Beardslee, 2003).

Executive Function and Academic Achievement

Executive function refers to a set of skills involved in the deliberate, top-down, goal-directed control of thought, action, and emotion (e.g., Carlson, Zelazo, & Faja, 2013). EF is often described as consisting of three distinct components including working memory, inhibitory control, and cognitive flexibility (e.g., Miyake et al., 2000). Working memory is the capacity to keep information in mind and manipulate that information. Inhibitory control refers to the ability to ignore distractors or inhibit an often expressed, relatively automatic response. Cognitive flexibility refers to the ability to consider information in various ways and the ability to switch between different rule sets or ways of thinking.

Importance of Executive Function for Academic Success

Individual differences in EF have been consistently associated with academic achievement (Blair, 2002; Buckner, 2003; Carlson et al., 2013), especially math and reading skills (e.g., Blair & Razza, 2007; Diamond, Barnett, Thomas, & Munro, 2007; McClelland et al., 2007). Children with more developed EF, measured in both behavioral assessments and through teacher and parent report, show better academic achievement than their peers with less sophisticated EF. A positive relationship between EF and academic achievement remains even when controlling for general intelligence (IQ test scores; Buckner et al., 2003; Masten et al., 2012). Individual differences in EF in childhood are predictive not only of academic achievement in childhood but also of more distal outcomes such as differences in cognitive skills in early adulthood (Eigsti et al., 2006).

The evidence linking EF to academic performance makes sense when one considers the applicability of these skills to the classroom environment. Behaviors that kindergarten teachers report as important for school success depend on good EF skills, including the ability to sit still, pay attention, and follow rules (Rimm-Kaufman, Storm, Sawyer, Pianta, & LaParo, 2006). It has been hypothesized that boosting a child's EF would help with classroom skills that depend on EF, including paying attention, remembering and following rules, learning from instruction, planning ahead, delaying gratification, ignoring distractions, and managing emotions (e.g., Blair, 2002; McClelland et al., 2007).

The Malleability of Executive Function

Fortunately, given its potential importance for academic achievement, an increasing number of studies indicate that EF is malleable through interventions, including EF training or practice and preschool curricula. While the potential to train EF presumably exists throughout development, the preschool period has been identified as a window of opportunity for change when there appears to be considerable plasticity in human brain development and function, due in large part to structural and functional changes occurring in the prefrontal cortex (PFC) during that window (e.g., Carlson et al., 2013; Diamond & Lee, 2011; Zelazo & Carlson, 2012). Improvements in EF have been documented following both lab-based training and classroom curricula focusing on EF. Rueda, Rothbart, McCandliss, Saccomanno, and Posner (2005) found that 5 days of lab-based attention training improved EF in 4- to 6-year-old children as evidenced both in behavioral measures of EF and in related neural changes when monitored during task performance. In a separate training study, preschoolers' working memory improved after 5 weeks of computerized working memory training in a lab setting compared to an active control group who played commercially available computer games (Thorell, Lindqvist, Bergman Nutley, Bohlin, & Klingberg, 2009). Espinet, Anderson, and Zealzo (2012) provided evidence that children's EF can be modified through even briefer exercises that

encourage children to reflect on more aspects of the context in which they were responding. These authors assigned children who failed a measure of EF (the Dimensional Change Card Sort) to one of the three conditions: an experimental condition that consisted of reflection training, and two control conditions consisting of minimal feedback training or mere practice. Children who received reflection training showed significant improvements in EF performance, unlike children in the two control conditions, and they also showed a more mature pattern of neural activity, as measured by electroencephalography (EEG).

In addition to these lab-based studies, EF training has also been studied outside the laboratory, most notably in classrooms using adapted, EF-focused curricula. Tools of the Mind (Diamond et al., 2007), Promoting Alternative Thinking Strategies (PATHS) (Riggs, Greenberg, Kusche, & Pentz, 2006), and the Chicago School Readiness Program (CSRP) (Raver et al., 2011) all show promise in improving students' EF. Tools of the Mind is a year-long preschool curriculum in which 40+ core activities are used to support and challenge EF throughout the day. When Tools of the Mind was tested in low-income, urban preschools, children receiving the Tools curriculum improved their performance on computerized measures of EF when compared to children receiving a standard literacy-based preschool curriculum (Diamond et al., 2007). PATHS is a curriculum add-on designed to train teachers to support children's self-control, help children recognize and manage emotions, and build children's interpersonal problem-solving skills. Second and third graders who received the PATHS curriculum showed larger inhibitory control gains throughout the school year than did children who received school as usual (Riggs et al., 2006). CSRP is a multicomponent intervention that trains teachers to utilize more effective classroom management strategies to help children better regulate behavior and emotions. When tested in low-income, Head Start-funded urban classrooms, CSRP was effective at improving preschoolers' EF and effortful control over the course of a school year (Raver et al., 2011).

Although EF training interventions have worked to improve low-income, disadvantaged students' EF, no intervention to date has been shown to work with HHM students at very high risk of academic difficulties. Due to the high mobility of this population, an effective intervention must be brief enough to be delivered before the family moves again, yet potent enough to induce meaningful, long-term change. HHM families are characterized by both frequent residential and academic mobility, with children oftentimes moving housing and schools throughout the year. Thus, a preschool curriculum designed to be delivered throughout the entire school year is not necessarily appropriate for HHM families. Our team is working to develop an intervention to fill that gap.

Parenting, EF, and School Success

Effective parenting also is associated with school success and self-regulation skills, including EF (Brody, Dorsey, Forehand, & Armistead, 2002; Eisenberg et al., 2005;

Herbers et al., 2011; Thompson & Raikes, 2007). Good parenting, which is one of the most widely reported protective influences in the literature on resilience in children (e.g., Luthar, 2006; Masten, 2007), may be particularly important for HHM children and similar high-risk children, who lack stability in other aspects of their lives (e.g., constantly shifting peer groups, academic environments, and neighborhoods due to frequent residential mobility). Indeed, Herbers (2011) found that EF mediated aspects of the relationship between parenting quality and academic functioning in young homeless children. Bernier and colleagues found that two specific aspects of parenting in infancy, maternal mind-mindedness (talking about a child's thoughts and feelings) and autonomy support (non-intrusive scaffolding during problem solving), predicted child EF at 2 years old, and again at 4 years, over and above child IQ, and parent–child attachment security (Bernier, Carlson, Deschênes, & Matte-Gagne, 2012; Bernier, Carlson, & Whipple, 2010). Scaffolding was also related to EF in another study examining low-SES preschoolers prone to behavior problems (Hughes & Ensor, 2007). Not only is parenting predictive of child EF, but also parents' own EF is predictive of their parenting, specifically to their scaffolding effectiveness (Hughes & Ensor, 2007). Given the important role parents play in children's developing EF, especially in HHM children for whom parents may be one of the few stable aspects in their daily lives, parent involvement should be considered a key component in efforts to foster EF in young children.

Evolution of the Research Program

For more than 20 years, one of our team leaders, Professor Ann Masten, has been engaged in research on risk and resilience in HHM children (Masten, Miliotis, Graham-Bermann, Ramirez, & Neemann, 1993; Masten et al., 2008). During that time, Masten worked closely with shelter providers and local school districts and other community partners to gather data that would be informative for practice and helpful to schools, while also trying to learn more about the nature of risk and resilience in these families. Basic research from this body of work has indicated that HHM children staying in shelters often have high cumulative risk levels, which are related to a variety of problems (e.g., Masten et al., 1993; Monn et al., 2013). Children in homeless families often have difficulties in academic achievement (Cutuli et al., 2013; Herber et al., 2012; Masten, 2012; Masten et al., 2008), behavior problems (Masten et al., 1993), compromised social functioning (Masten et al., 1993), and increased likelihood of asthma (Cutuli, Herbers, Rinaldi, Masten, & Oberg, 2010). At the same time, this team has also focused on resilience and factors associated with better adaptation among these children. They have found that child function and school adjustment are associated with cognitive skills, such as IQ and EF (Masten et al., 2012; Obradović, 2010), and effective parenting (Herbers et al., 2011; Miliotis, Sesma, & Masten, 1999).

With the new surge of homelessness that accompanied the Great Recession of 2007, Masten and her long-term collaborators decided to focus more of their

attention on developing strategies to improve school readiness in children entering kindergarten during or shortly after they were homeless. They continued with basic research aimed at a deeper understanding of the processes of risk and resilience in these families, while also shifting to focus more directly on developing and testing intervention strategies that were designed to promote school readiness in HHM children and similarly disadvantaged preschoolers.

In 2010, with support from a local funder, the group began a collaborative effort to boost executive function skills in rising kindergarteners residing with their families in an emergency homeless shelter in Minneapolis. The design team included shelter staff and teachers as well as a university faculty, early childhood teachers, and graduate students. The intervention was planned as a 3-week program for children attending the early childhood program at the shelter, timed to occur during the month before the children entered kindergarten, and designed to boost EF skills immediately prior to this critical transition.

This program, called "Ready? Set. Go!" (RSG), has been implemented yearly in August beginning in 2010, with support from a local foundation (Sauer Children's Renew Foundation). It is a small program that was forged by a team of community and university experts who brought different skills to the table: teachers and community staff with extensive experience working with homeless families; university lab school teachers with expertise on teacher training; researchers with extensive research experience and knowledge of risk, resilience, and EF in human development; and district researchers and social workers with access to important district data and expertise on the rights of, and national programs for, HHM students. The success of this small program and the enthusiasm of children and parents inspired our group to apply to the U.S. Department of Education's Institute of Education Sciences (IES) for funding to further develop the intervention. We expanded the goal to develop a program targeting EF skills in preschools with many homeless or highly mobile, disadvantaged children and redesigned the program for greater flexibility in terms of context, age, and timing. Since many preschools have mixed-age classrooms, we targeted children 3–5 years of age and designed a program that could be implemented within a single month any time of the year. The development and testing of RSG are fully collaborative in the spirit of what Masten (2011) has called translational synergy—designed and implemented in partnerships that are collaborative from the outset, thus eliminating the infamous translational gap in which it often takes many years for basic research to be applied to real-world settings. The program is theory-driven but also aimed to be practical and usable.

Description of the Intervention: Ready? Set. Go!

With funding from IES (Goal 2: Development), we have been developing a three-component intervention for preschool children designed to be suitable for highly mobile and disadvantaged children, but also with the flexibility to be applied in any preschool classroom. Our theory of change, described below, was based on

neurodevelopmental theory about the nature of EF development and training, informed by resilience science and preschool pedagogy. Funding from IES provided the opportunity to develop and refine our EF intervention through an iterative process of sequential, small scale trials and appropriate refinements. Each component could be designed, tested, and revised as we developed methods for evaluating changes in the children, parents, and classroom, teaching training, and fidelity of implementation (O'Donnell, 2008). During this process, our overall intervention shifted from initial pull-out training in which small groups of children were removed from the classroom for EF training, to a classroom-integrated strategy and teacher training model. These changes represent a move toward a more sustainable intervention model that would be practical for subsequent dissemination if the intervention proved successful.

Theory of Change

RSG's target of change is EF in high-risk preschoolers, with the goal of improving their early school success by improving the fundamental learning skills that depend on EF. As noted above, EF is important for school readiness and also malleable. Preschool appears to be a window of opportunity for altering EF, proximal to the beginning of school and also a period when there is rapid development of EF related to brain development (Zelazo & Carlson, 2012). Early childhood is also a period when quality preschool experiences yield a good return on the costs of intervention (Heckman, 2006; Reynolds, Temple, White, Ou, & Robertson, 2011). Building foundational competence in this window is believed to generate a positive cascade of achievement that carries over to school: competence begets competence (e.g., Heckman, 2006; Masten, 2006). By intervening prior to entry into kindergarten, we are able to both take advantage of a naturally occurring window of plasticity and potentially set in motion a positive cascade of effects that will proliferate throughout a child's academic years and beyond. Through the direct promotion of EF skills, we aimed to also indirectly promote emergent literacy as well as relationships with teachers and peers, giving children a better start on the road to school success at a critical juncture in their neurocognitive development.

As demonstrated in the literature summarized above, EF skills are amenable to training, especially during the preschool period. The change processes implicated in such training are based on a theory that changes in EF during childhood result from increases in children's tendency to engage in reflection (e.g., on the situation, on their own knowledge, on their goals) prior to responding, which allows them to formulate more complex plans, maintain these plans in working memory, and use them when solving problems (Zelazo, 2004; Zelazo et al., 2003). Neural correlates of EF, including regions of the PFC, develop as children engage these regions when reflecting prior to responding (Bunge & Zelazo, 2006). Indeed, according to this framework, reflection training promotes the formation of neural networks in the PFC and then exercises those networks to increase the ease with which and

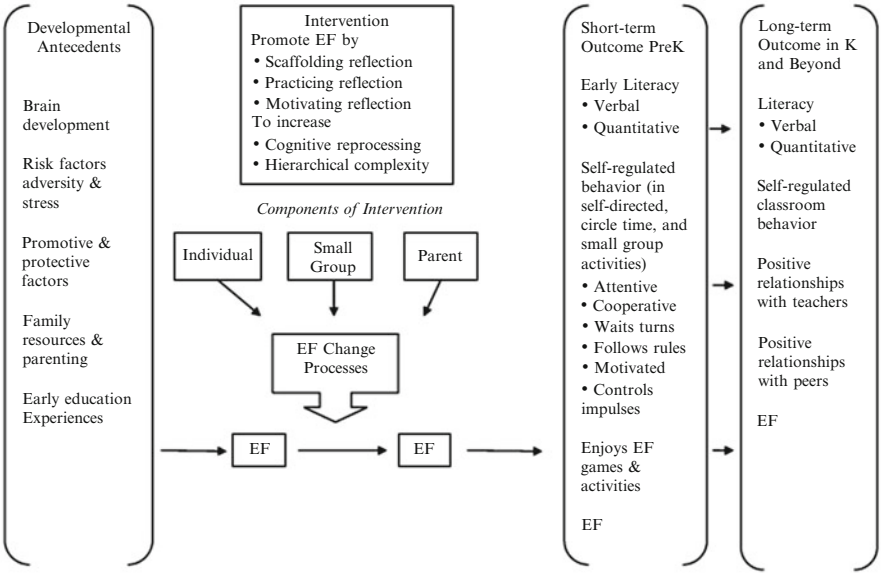

Fig. 7.1 Conceptual model of the Ready? Set. Go! intervention

likelihood that they will be used in the future. In reflection training, adults intentionally model and scaffold verbal reflection on rules and actions, for example, pointing out that the child is still thinking about the old rules and acting on them, and encouraging him or her to think about the new rules or the more appropriate course of action. See Fig. 7.1 for a visual depiction of our theory of change.

Three Components of the Intervention

RSG is a three-component intervention delivered over 3 weeks in a preschool or early childhood education setting. The three integrated components include teacher training and classroom curriculum, parent training and involvement, and child training and support at the individual level. Each component will be described in detail below.

Teacher Training and Classroom Curriculum

Prior to implementation of the intervention, lead teachers and teachers' aides as well as any site leadership or administrative staff interested and available attend a training session lasting approximately 5 h led by an expert teacher from our team. During the teacher training, the leader introduces the concept of EF, highlights

research on the importance of EF for school success, encourages teachers to brainstorm ways that EF is already involved in their classrooms, describes the intervention structure, introduces core EF curriculum activities, and demonstrates through video and live demonstration those EF curriculum activities to be used in the classroom during the duration of the intervention. Teacher engagement and active participation in the training are encouraged and promoted through inclusion of in-session brainstorming, eliciting teachers' own experiences, opinions, and ideas, and completion of in-session response activities in an accompanying handout. At the end of the formal presentation, teachers are given a chance to practice the EF activities for themselves while the leader is present to answer questions. Teacher's aides receive additional training on the individual support component of the intervention, as the aides are expected to provide that support. Similar to lead classroom teachers' practice with the core EF curriculum activities, teachers' aides are given the opportunity to practice individual support activities themselves and ask questions following formal instruction. At the conclusion of the training, teachers receive all necessary supplies for the upcoming intervention including props used for the activities, activity scripts and rules, fidelity tracking forms that teachers will complete during the course of the intervention, and an intervention manual including information about EF that was communicated during the training.

During implementation of the intervention, the expert teacher who led the training continues a relationship with the classroom teacher. The pair meets weekly to discuss progress and develop plans for the upcoming week. Initially, the meetings focus on making the classroom teacher more comfortable with the core EF activities himself or herself. In the second week, the meetings focus on the classroom teacher's use of language to support students' EF skills. Uses such as open-ended questions, providing opportunities for reflection throughout the day, and presenting opportunities for problem solving are emphasized. In the final week of the intervention, the expert teacher works to help the classroom teacher to both find places in the curriculum to insert the core EF curriculum activities developed by our team and apply an "EF lens" to the activities already occurring in the classroom and add an EF focus to already existing activities and routines where possible. The content of the weekly meetings is flexible and unfolds organically considering the current skill level of the classroom teacher, the relationship between the classroom teacher and the expert teacher, and the particular demands of the classroom in question. Apart from the weekly meetings, the expert teacher is always available for consultation during the course of the intervention should any concerns or questions from the classroom teacher arise.

A primary piece of the classroom curriculum component of the intervention is the utilization by the classroom teacher of the core EF curriculum activities developed by our team. Classroom teachers integrate these activities into their curriculum for use during large group or whole classroom time as well as during small group time. Each of the five core EF activities we have developed for use in the classroom emphasizes at least one aspect of EF: working memory, cognitive flexibility, and inhibitory control. For instance, BINGO is a group activity during which teachers

first invite children to sing the traditional BINGO song and then introduce the EF challenge of dropping certain letters from the song. When a letter is dropped, the children must clap in its place. When the teacher drops N, for instance, the children sing "B-I-*clap*-G-O." BINGO requires children to inhibit the learned response of singing every letter. The song also requires children's working memory to keep the rules in mind and use those rules to guide their singing. Freeze dance is a group activity in which children dance to music until it stops. As the music stops, the teacher holds up a card depicting a body position that the children are invited to imitate. Freeze dance requires full body inhibitory control as the children must stop dancing and hold their bodies in a given position, inhibiting their tendency to move. The activity can also be adapted to include a stronger working memory component by showing the children the body position card prior to the time that they must freeze thus requiring them to remember the position when the music stops.

In addition to the five core EF activities we have developed, classroom teachers are also encouraged to develop an "EF lens" through which to view their classroom and current curriculum. Classroom teachers work to adapt activities and routines already in place in their classrooms to have an EF focus. One example of a common preschool activity that has been adapted in this way is working with moldable clay. While using the clay, teachers can emphasize cognitive flexibility by encouraging the creation of different shapes and figures. Children might first create a ball and then create a larger, more complex structure, such as a smiley face where the ball functions as an eye and then a snow man where the ball functions as a body segment. Emphasizing EF is not restricted to formal lessons, but can be integrated into routines and transitions such as snack time or lining up to make transitions in and out of the classroom. During one developmental iteration, a classroom teacher used her line up time as an EF booster by taping shapes of many different colors on the floor where the children line up. Children were asked to line up by color one day and by shape the next day, requiring them to continually switch between rule sets depending on the teacher's instructions that day. In addition to adapting current activities and utilizing transition times, teachers are encouraged to infuse other practices associated with EF development throughout the day, including open-ended questions and reflection.

Teacher training is required in order to implement full intervention program. During the current developmental phase of the program, we conduct onsite trainings led by teachers and graduate students on our team. The training takes place over 2 days, with approximately 3 h of material presented per day. The first day of training focuses on introducing the idea of EF to teachers and reviewing research about its development, malleability, and importance for school success. The second day of training focuses on training teachers and teachers' aides with concrete activities to implement in the classroom or in an individual support setting as well as helping teachers develop an EF lens with which to view their curriculum to identify spots to boost EF. While the training is currently delivered onsite, our team is working to develop alternative flexible training modalities that include an off-site train the trainer model, delivery of online training and support, and a combination of these modalities to allow for eventual widespread dissemination of the program.

Parent Training and Engagement

Parent involvement in the intervention includes both formal and informal aspects. Informal involvement includes parents' vital role in assuring their child's attendance in preschool. At the most basic level, parents need to bring their children regularly and on time to the preschool for the children to benefit from attending and participating in the program. This basic task can be challenging for parents in crisis. More formally, parents of children in the intervention classroom are invited to attend weekly Family Fun Meetings over the 3-week course of the intervention. These meetings last approximately 2 h on a day and time that is convenient to the participating families and community site. The meetings have two components: a parent education portion and a parent–child interaction portion. The meetings begin with the parent education portion during which the parents gather while childcare for participating preschoolers and their siblings is provided in a separate room. During this portion of the meeting, experts lead the parent group through content including introduction of the concept of EF, emphasis of the importance of EF for academic success, introduction of the idea of brain plasticity and the importance of practice for building skills, discussion of the detrimental effects of stress on EF, and teaching of tangible, specific activities to parents to try at home with their children.

Following the parent education portion of the meeting, parents and children are reunited for the parent–child interaction portion. Here, parents are given an opportunity to practice the tangible, EF-boosting games and activities they learned during the parent education portion of the meeting with their child with the support of the family educators and classroom teachers. Parents introduce their children to the games they were taught earlier and play the games while experts walk around offering advice and answering questions as necessary.

Following the guided EF activity practice, children and parents are invited to participate in a musical experience adapted to emphasize EF from the internationally recognized Music Together® program. First offered to families in 1987, Music Together® pioneered the concept of research-based, developmentally appropriate early childhood (birth to age 8) music curriculum that consciously facilitates adult involvement. As part of our project, we have collaborated with Music Together® teachers to develop EF-specific enhancements for Music Together® songs as well as for common preschool songs.

Children and parents gather in a circle while a registered Music Together® teacher guides families through approximately eight songs with related movement and instrument activities. The music portion of the Family Fun Meetings serves a dual purpose. First, it provides a designated time for an enjoyable, positive interaction between parent and child. Such opportunities are often times hard to come by for low-income, highly mobile families as parents are frequently preoccupied with other pressing needs associated with poverty (e.g., working long hours, searching for gainful employment, securing basic resources such as food and shelter). Second, the songs parents and children are engaged in during the sessions help support EF through the already existing structure intrinsic to the songs and through more specific EF adaptations. Certain elements of the music curriculum support EF

inherently. For instance, many songs include a "pause moment" in the middle, an element that requires inhibitory control to master, as one must stop singing for the pause. Cognitive flexibility is emphasized when teachers provide children with the opportunity to come up with different ways to use their bodies or instruments such as rhythm sticks. Dropping certain words from songs while hearing them in one's mind requires inhibitory control in order to not sing that word as well as working memory to remember which words one should sing and which words are dropped. In addition to these already existing supports, we have added elements to the songs, which are specifically designed to use and challenge EF. For instance, in one song children are invited to move to the beat but to do the opposite of what the leader is doing. For example, if the leader puts his or her hands up, the children put their hands down. This activity requires inhibitory control to resist the impulse to imitate the leader as well as cognitive flexibility to be actively thinking of a different, opposite way one could act. Finally, we include a song requiring regular deep breathing, as well as a lullaby to foster awareness of the tools for self-regulation.

Due to the extreme poverty of the targeted population, parents participating in RSG are provided with various take-home materials to assure easy access to EF-boosting activities at home. Throughout the course of the program, parents are provided with game and activity materials, such as storybooks that promote EF and cards for EF games that parents learned during Family Fun Meetings, music CDs including EF songs made familiar during Family Fun Meetings and CD players, ideas for games and other opportunities to practice EF that do not require purchasing materials, and a tote to keep all their materials together or for parents to store the child's school records and artwork. The portable tote is particularly important for a mobile population to help reduce lost or misplaced pieces or important documents as the family moves from one location to another.

Individual Child Training and Support

The third component of RSG is the provision of individual support as needed for students struggling with EF skills in the classroom. The goal of providing such individualized support is to support the EF development of those children who lack the prerequisite EF skills required to benefit from the group activities. Children who receive individual support are identified through a combination of initial EF test scores and teacher recommendation. The individual support is delivered by a teacher's aide, while the lead teacher remains in the classroom with the remainder of the class. Aides work individually with each child for approximately 10 min each day the child attends preschool. Session occurs either outside the classroom, if a suitable alternate location is available (e.g., an unoccupied additional classroom in the building or unoccupied resource space such as a library), or in an isolated location within the classroom itself. If the individual support is provided within the larger classroom, the aides attempt to isolate themselves and the target child as much as possible from the other children and classroom activities to avoid distractions or interference from other students. Working individually with targeted children is

encouraged to ensure aides are able to provide intensive scaffolding to meet the child's current level of functioning at a level that would not be possible when working with a larger group of children. The content of the individual support sessions includes six activities in a 3-week rotation and additional relaxation/stress reduction activities. Activities include some from the larger classroom activities as well as some unique to the individual support repertoire. Importantly, each activity is leveled to allow for scaffolding for children who are struggling as well as challenge for children as they improve. Throughout the course of individual support, the aide begins at the easiest level of an activity and ascends through the levels as the child progresses in his or her understanding or skill.

The leveled approach is well represented in the Bear/Dragon activity, a scaffolded version of the traditional Simon Says game. In our version of Bear/Dragon, the aide introduces children to a "nice Dragon" puppet and a "mean Bear" puppet. Children are required to inhibit their actions when the "mean Bear" asks them to do something (e.g., "Touch your toes") but not when the "nice Dragon" asks. The easier levels of this activity include scaffolding strategies such as the teacher holding children's hands, and later having children sit on their own hands to help them inhibit responding to Bear's commands. Other scaffolding strategies include using "mean" and "nice" voices when controlling the puppets to remind children of the rules and having children do something in place of listening to "mean Bear's" commands (e.g., shaking their head no or shouting, "No way!" when Bear asks them to do something).

Lessons Learned from the Iterative Strategy

In the development of RSG to date, we have completed nine unique iterations of the intervention at four community sites including a preschool within an emergency homeless shelter, a community preschool serving disadvantaged, low-SES children, a university laboratory preschool, and a university research laboratory setting. Initial iterations implemented only certain components of the intervention while others were being refined, and later iterations integrated all three components into a cohesive program.

Several lessons have been learned in the course of the iterative development of RSG. The most salient lesson, discussed further below, is the importance of collaboration between all parties involved in the project including research staff, teachers and administrators at participating community sites, and parents. Another salient lesson from the iterative process of intervention development involved a shift in method of delivery of the classroom curriculum component. During initial iterations of RSG, the classroom curriculum component was delivered by an expert teacher from our team rather than by the classroom teacher from the participating community site. We began by placing a teacher from our team in the classroom to model effective EF teaching strategies to classroom teachers. It quickly became clear, however, that this model was not ideal for various reasons. First, we experienced understandable resistance to implementation of the intervention from classroom teachers

who wanted to maintain leadership of their own classrooms. Aside from creating issues for classroom teacher buy-in, the teacher-in-classroom model also did not provide the rich opportunities for modeling our team foresaw. Rather than being able to observe the expert teacher leading core EF activities, the classroom teacher was often otherwise preoccupied by the constant demands of the classroom (e.g., attending to children who needed assistance, leading a different lesson with a separate small group, handling administrative duties). Thus placing an expert teacher in the classroom served to free up the classroom teacher to accomplish other duties, but rarely afforded the opportunity of learning through observation. Lastly, we realized that the teacher-in-classroom model is impractical for an intervention that might be widely disseminated. It would not be possible to provide guest expert teachers to each classroom wishing to implement an innovative program like RSG. Teacher training, in contrast, has the possibility of being delivered remotely with the use of video conferencing or online tutorials. Switching to a teacher training model improved classroom teacher buy-in and fidelity of implementation, as the classroom teacher was able to maintain ownership over her classroom and curriculum. The transition also increased the potential for widespread dissemination of RSG following the demonstration of the intervention if it proves effective.

In examining data from the various iterations implemented thus far, it is clear that a variety of measurement techniques give a more complete picture of change. We began the project examining child behavioral measurements, parent report, and teacher report. The consideration of child behavioral data alone is inappropriate for an HHM population when one considers the chaos and day-to-day variability in children's lives and resultant inconsistency in their behavior. Measuring change by examining child behavioral measures alone risks missing meaningful change that is occurring if a child is assessed on a randomly occurring day in which he or she is particularly dysregulated. Thus, from the beginning, we have adopted a multi-informant approach, collecting data about the children from their parents and teachers in addition to the child behavioral measures of interest. After several iterations, we moved to include classroom observation as an additional measurement technique to capture the changes not only in individual children but also in the classroom itself that our team and community partners reported experiencing. We have plans to incorporate a further level of analysis by including biological measures in upcoming iterations.

An important consideration when working with HHM children is the difficulty of transitions. While transitions are somewhat dysregulating for all preschoolers, we observed that children experiencing high levels of stress, whose lives are characterized by residential or school mobility or both, had even greater difficulties with daily transitions. Over the iterative development process, our team has worked both to minimize transitions for children receiving the intervention and to build EF training activities around typical transition times (e.g., transition to snack time or playground). For example, working with a classroom teacher, we tried to limit the number of times a child is pulled from the classroom for any of our assessments by using the beginning and end of the school day for assessments. Thus, a child must only transition once (e.g., transition into the classroom in the morning) rather than

multiple times (e.g., transition into the classroom in the morning, then out of the classroom for assessment, then back into the classroom for the remainder of the day). Our team also collaborated with classroom teachers to identify times in the schedule that are best for transition of children into the classroom following morning assessment or out of the classroom for afternoon assessment. Important considerations include avoiding large group time to minimize distractions for other children and avoiding the target child missing any EF-focused curriculum activities. Lastly, to minimize the effect that transitions have on child behavior and performance during assessment sessions, we have included a warm-up and stress relaxation portion of the session that occurs before administration of any of our key behavioral measures. This warm-up helps to both familiarize the child with the assessor and reduce any ambient stress the child is experiencing that may affect his or her performance. In addition to minimizing transitions due to assessment, the curriculum includes minimal transitions in and out of the classroom during the school day and encourages engaging children in EF-boosting activities when those transitions must occur.

Related to the difficulty with transitions is the consideration of the current level of stress both children and their parents are experiencing. Homelessness and the associated demands to find stable housing, stable employment, and provide the food and material goods to meet their child's basic needs exert chronic high stress loads on HHM families. This stress often needs to be addressed for children and parents to be able to actively engage in the EF-focused portion of the intervention. RSG addresses children's stress levels by the inclusion of the warm-up and stress relaxation activities discussed above. Parents are given the opportunity to talk about their own stress and learn stress management techniques during the parent education portion of the Family Fun Meetings. During parent education sessions, we also discuss the importance of family routines, including bedtime routines, for helping children manage stress, and the role of adequate sleep for learning.

A final example of lessons gained through the iterative process of intervention development is the importance of flexibility in the program components to facilitate implementation at diverse community sites. Each site and even different classrooms within the same site have different needs, routines, issues, and expectations. Flexibility is built into RSG through provision of classroom EF activities as a menu, encouraging classroom teachers to add EF focus to activities already existing in their curriculum, and collaborating with community partners to identify appropriate times and locations for other components (i.e., parent involvement and individual support). While we currently provide classroom teachers with five core EF curriculum activities, RSG is not a full preschool curriculum requiring elimination of existing structure. No strict scripts or lessons are prescribed. Instead we encourage the organic inclusion of the core EF activities within the already existing classroom structure. In addition to the core EF activities, classroom teachers are allowed further flexibility with the emphasis of adoption of an "EF lens" through which to view their classrooms. Classroom teachers are then free to maintain ownership over their classrooms by developing new activities and adapting existing activities that work for their specific classroom and group of students. With the use of these principles, we have found that it is feasible to retain core theoretical elements of the

intervention (e.g., sharp focus on developing EF, encouragement of active reflection, inclusion of all three components of the intervention) while building in the flexibility necessary for widespread dissemination across sites likely to have diverse needs and circumstances.

Challenges

There are several challenges our team has encountered during the iterative development process. Some challenges we face are unique to working with an HHM population, such as the inherent chaos of the shelter environment and the chronic mobility of the families. Others are reminiscent of hurdles in the development and implementation of any intervention, such as the engagement of target families and the need for collaboration with community partners.

The largest challenge our team has had to contend with is the high mobility of the target population itself. Given that the intervention is delivered through the preschool classroom at the emergency shelter, children only receive the intervention when staying in the shelter. The average stay at the emergency shelter in which we have worked is 38 days. Thus, our intervention must be brief enough to be delivered within the average shelter stay of a family, yet potent enough to imbue meaningful change. In addition to the delivery of the intervention itself, our research team must also collect pre- and post-assessment data. Families commonly move out prior to our team conducting post-assessments. Even more common is that families have often moved by the time we would like to collect additional follow-up data, which is up to several months after the conclusion of the intervention to assess the longevity of the induced change. Thus, we are developing and testing a variety of strategies for following these mobile families.

A challenge not necessarily unique to an HHM population is the challenge of engaging families meaningfully with the program. In the course of any research or intervention project, implementers are likely to encounter some skepticism on the part of potential participants. The investigators' task is to demonstrate very quickly after meeting the families the benefit that the research will provide to families like theirs. The message about kindergarten readiness resonates well with parents of preschoolers, especially in the summer months prior to their child's entry into kindergarten. The legitimate framing of the intervention as a strengths-based program (e.g., "promoting EF development") rather than a deficit reducing program (e.g., "eliminating behavior problems") is also more readily accepted by families (Buckner, 2012).

Another set of challenges shared by many intervention researchers are those related to collaboration with community partners. In an intervention that is delivered through various different community sites, understanding each context and the diverse priorities and needs of each site is essential. Within each community site, many parties must be involved and committed to the project. One must not only involve classroom teachers but also other key staff who facilitate the effectiveness

of any program, including teacher's aides, food service staff, and others, as well as administrators at the site. Inherent in the iterative development process is the continual refinement of program components. Community partners must be kept abreast of any decisions and be on board in implementing these changes.

Importance of Collaboration

The complex nature of this project has required a wide range of skills and resources, beyond what any single individual or discipline could offer. Thus, the importance of collaboration in the success of this project cannot be overemphasized. Our team is made up of developmental psychologists, early childhood educators, preschool teachers, and leaders and staff from community sites. The cooperation of each of these individuals has resulted, we believe, in "translational synergy" (Masten, 2011), where the collaborative efforts of the team of researchers, community partners, and families have yielded an intervention design that is better overall than it would be if it were created in isolation in either a research setting or a community setting. We think that the combined expertise of the team (on EF, teaching, homelessness, and other key domains of knowledge) has produced a practical and evidence-informed intervention that children, teachers, and parents enjoy, with the potential of boosting EF skills in very disadvantaged, preschoolers.

The practical and creative research design is the result of the collective expertise of all the collaborators. The combined expertise on the cognitive neuroscience of EF, assessment of EF, learning in preschoolers, classroom management, and the development of competence in children at risk laid the foundation for an intervention with a strong theory of change, as well as real-world applicability. Shelter staff and the community advisory board, which included leadership from the participating sites, local shelters, and the school district, provided numerous insights and practical guidance on project design and implementation.

The intervention components of the project have benefited from collaboration across sites and disciplines as well. An expert preschool teacher along with early childhood educators at the University of Minnesota (U of MN) developed the curriculum and teacher training component. It has subsequently benefited from the feedback of preschool teachers who underwent the training and implemented the curriculum in a variety of settings, including the U of MN Laboratory School and community sites in Minneapolis. These teachers provided ideas for new EF-boosting activities and suggested improvements to the program during coaching meetings, in daily tracking forms, and in evaluations collected at the end of the program.

Under the guidance of lead researchers, graduate students at the Institute of Child Development (U of MN) developed both the parent education and one-on-one support components. In the most recent implementation of the parent education component, we trained the parent educator at the shelter to co-lead the Family Fun Meetings. Her knowledge of this population and her feedback about the content of the groups helped us improve this component to better meet the needs of these

families. Throughout the iterative process, the one-on-one component has been implemented in multiple settings by research assistants, student teachers, and teacher's aides. Each of these individuals provided us with a different perspective on the effectiveness and feasibility of this component and we arrived at our current form of the one-on-one component based on this rich feedback.

In addition to collaboration between professionals on the project, we have found collaboration of the project team with participating families to be invaluable. We hope that by requesting feedback from families we make it clear to parents that they have an important role in shaping and refining our project. We believe that acknowledging and engaging with parents as collaborative partners has increased parent involvement and attendance at groups and research sessions, in addition to improving the design of our intervention.

Ethical Considerations and Sociocultural Sensitivity

Our project targets a population living in challenging circumstances. The majority of families that participate in RSG are racial/ethnic minorities who live in poverty. Many are currently homeless or have been homeless in the past. Consequently, the ethical considerations of our project are multifaceted and its implementation requires a high level of sociocultural sensitivity. We followed principles and guidelines of our respective professional associations, drew on the considerable experience of all the collaborating professionals who work with such families, and also consulted often with the participating families through focus groups and feedback evaluations. Additionally, we consulted as needed with multicultural experts.

Members of our team have longstanding relationships with each other and community partners and extensive experience working as clinicians, researchers, educators, and service providers with disadvantaged and culturally diverse families. Our work has been informed by feedback from parents, focus group members, teachers, and our advisory group. We routinely hold design meetings with partners at community sites where we not only gather information about the real-world feasibility of implementation but also gain insight about the unique characteristics of the project's target population. Each of these individuals and groups have contributed to the development and implementation of an intervention research project that is deeply knowledgeable, respectful, and sensitive to the families and children we hope to engage in this project.

The APA Guidelines on Multicultural Education, Training, Research, Practice and Organizational Change for Psychologists (2003) encourage psychologists to learn about the social norms in a given culture prior to and throughout the implementation of a research project. Our team has benefited from the insight of multicultural staff who serve many roles in the project, including Family Fun Meeting leader, parent interviewer, child assessor, and in-classroom aide. In addition, we have held focus groups with parents at the shelter to determine the appropriateness of new measures and incentives, and we always request parent feedback about the

program after its completion. Through relationships with these families, we have gained insight into the needs and concerns of participating families and have established trust and credibility within the community, another indicator of an ethically sound, culturally sensitive project.

One of the hallmarks of ethical research is a proportional risk to benefit ratio for participants and the larger community (APA, 2002). We believe that the risks from participation in this intervention are minimal for families, and that there may be some benefits. We believe that it is particularly important that the communities who participate in a project like this one are also those that will benefit from the research. Our program is deliberately designed to help the communities in which we conduct our research, and the ultimate project goal is disseminating an effective program to similar groups in the future.

We also aim to provide immediate benefits to participating families. For example, parents may learn new strategies to help improve their children's EF skills and are given physical tools, such as EF-focused books, games, and CDs, to practice their new skills beyond the program's end date. The Family Fun Meetings provide parents and children the chance to simply have fun together, an opportunity that is often lost in the chaos of homelessness and poverty, and children have the chance to practice EF skills in a variety of supportive settings. Parents have indicated high levels of satisfaction with RSG components and overall iterations.

In addition to our goal of positive change in child EF and thereby school readiness, we also aim to have a positive impact on the families, teachers, and sites involved. The teachers and aides at community sites have received highly focused training on the benefits of strong EF and the ways to best support it in the preschool classroom. Descriptions of the intervention strategies and reports of the program results have also been shared at staff meetings so that staff not directly involved with the project could learn about EF. Staff at community sites have reported continued use of the tools and strategies learned during the program, an encouraging sign.

Another ethical challenge of the project was determining the appropriate incentive amounts for families living in poverty. The APA Ethical Principles of Psychologists and Code of Conduct (2010) states psychologists must avoid making "excessive or inappropriate financial or other inducements." Determining what qualifies as an excessive or inappropriate incentive is complex. Our research experience with families in the same situation, along with guidance from the University of Minnesota Institutional Review Board (IRB) and from parent focus groups, has helped us identify appropriate dollar amounts. All incentive amounts and changes to incentives throughout the iterative process have been approved by the IRB. Some families who learn about the study choose not to participate, which may indicate that the compensation amounts are not in the coercive range.

In accordance with the APA Ethical Principles of Psychologists and Code of Conduct (2010) on the use of assessments, we took the sociocultural background and education level of our participants into consideration when selecting measures. The majority of the questionnaires we use in parent interviews have been used successfully with homeless families in the past, and some were designed specifically for this purpose. Results from new measures are examined with possible limitations

in mind. We have also continued to refine our measures to be more appropriate for use with this population. To provide one example, interviewers noticed that many parents did not know the meaning of the word "essential," which was one of the choices on a Likert scale, so we changed the wording to "extremely important" to make it easier for parents to understand. We also took steps to ensure that parents feel respected and comfortable throughout their involvement in our project regardless of their education level, for example, by reading questionnaires aloud and ensuring that our consent form is concise and clear.

A more concrete outgrowth of our concern about the suitability and validity of measures for our research is the adaptation of two computerized measures of EF for use with children from more diverse backgrounds. It was clear from our early assessments that some of the most widely used measures of EF did not work especially well with highly disadvantaged children. Too many of the children failed "practice" trials or did not understand the instructions. For example, on the Flanker task, where the child is asked to feed the middle fish in an array, some children did not understand the concept of "middle." As a result, a team has worked to create downward extensions of two core tasks included in the NIH Toolbox, Flanker and the Dimensional Change Card Sort. This work has been supported in part by the National Children's Study as a formative project. These tasks are being validated not only through RSG use but also in collaboration with the school district (e.g., Anderson, Wenzel, Carlson, Zelazo, & Masten, 2013; Wenzel et al., 2013). The measures appear to be very promising, not only for assessing EF in young and more diverse children but also potentially for early childhood screening and assessment of change in intervention studies.

Conclusion and Future Directions

The goal of this translational research program is to promote early school success in very disadvantaged and mobile children. The RSG intervention was built around a theory of change focused on EF as a key set of protective processes for learning and school success. Self-regulation skills have been widely implicated as protective for high-risk children in resilience science (e.g., Masten et al., 2012). We hope to show that by changing EF and the skills that depend on EF, we can promote academic resilience in very high-risk preschoolers during a window of neural plasticity.

At this time, we are preparing to pilot test our refined, multicomponent intervention to determine whether it is ready for a full-fledged efficacy trial with randomized control classrooms. We will continue implementing the program in our shelter-based preschool site. In addition, we plan to implement the intervention in a new site to test all the refined training materials and components with new teachers. We are eager to learn if it shows promise. However, we also recognize that our intervention may not work as well as we hope or it may need further development before we conduct a randomized efficacy trial. Our goal was ambitious and there are formidable challenges for implementing preventative interventions with multiple-risk

families currently experiencing considerable adversity. In any event, we will continue toward our goal, learning from successes and failures. That is the nature of the iterative process for developing and improving any intervention. We also will continue with our basic research on the processes underlying risk and resilience in these children, and particularly the role of stress in the adaptive function of these families. If our intervention succeeds and we can show that RSG leads to change in EF which promotes school success, the research will be informative both for interventions to promote academic resilience and for resilience theory on promotive processes linked to the development of EF.

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Chapter 8
Bringing a Resilience Perspective to Children in the Child Welfare System: A Curriculum for Caregivers

Gabriel Tobin Smith, Paul A. LeBuffe, Deborah Alleyne, Mary Mackrain, and Linda Likins

Resilience is the process, or processes, by which individuals are able to achieve positive developmental outcomes despite risk factors and adversity (Masten, 2006; Masten & Coatsworth, 1998). Resilience can be thought of as the product of two related, but opposing forces in an individual's life: (1) risk factors that act as barriers to achievement of optimal health and well-being and increase the likelihood of negative developmental outcomes, and (2) protective factors that increase resistance to risk factors (Goldstein & Brooks, 2005; Klein, Kufeldt, & Rideout, 2006) and thereby contribute to more positive outcomes including optimal health and well-being. Risk and protective factors have additive effects, with additional risk factors increasing the likelihood of poor outcomes, and additional protective factors increasing the likelihood of positive outcomes (Klein et al., 2006; Masten, 2001). Risk and protective factors can exist at varying levels. As discussed below, they may exist within the environment, within the family, or within an individual (also referred to as internal risk or protective factors).

Risk Factors in Child Welfare

Nearly three and a half million allegations of child abuse, involving over six million children, are made in the United States annually, and over 600,000 children were confirmed victims of child maltreatment in 2011 alone (U.S. Department of Health and Human Services [USDHHS], 2012b). The US child welfare system has developed to intervene in circumstances of child maltreatment through addressing the primary goal of child protection, and a secondary goal of finding or maintaining

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permanent placements for children who have been abused or neglected (Brooks & Webster, 1999). A prevalence of adversity and risk factors in the lives of birth parents, children, out-of-home caregivers, and professionals who live and work within this system is well recognized, suggesting a potent opportunity for resilience-focused work. In families where maltreatment occurs, risk factors are common at the environment, family, and individual levels. This confluence of risk factors can exert a powerful impact on the lives of children who have minimal control over these circumstances during critical developmental periods.

Environmental Risk Factors

Certain influences in the environment, particularly when combined with risk factors within the family and its individual members, are associated with child maltreatment. These environmental risk factors include societal and community characteristics such as poverty, violence, high crime rates, and low social cohesion (Gilbert et al., 2009; USDHHS, 2003). Communities with these characteristics can be unpredictable for the children and families who live within them. Furthermore, the unpredictability of these community environments can extend into the home. Circumstances of poverty may leave children and families without basic necessities such as safety, clothing, and nutrition. Children may feel unsafe and undervalued in the face of this type of environmental uncertainty and lack of structure (Appelstein, 1998). These risk factors can be exacerbated by resource-deprivation to community supports such as schools, healthcare, and social services.

Family Risk Factors

Child maltreatment is also associated with a number of risk factors within the family. In particular, marital conflict, domestic violence, stress, and negative parent–child interactions commonly characterize families where child maltreatment occurs (Berry, Charlson, & Dawson, 2003; Cahn, 2006; USDHHS, 2003). Single-parent households and larger families with frequent changes in composition may also be more prone to child maltreatment (English, 1998; USDHHS, 2003). The USDHHS (2003) has also highlighted research identifying parental lack of knowledge about child development and behavior as a potential contributor to child maltreatment. Furthermore, parents who become perpetrators of maltreatment exhibit high rates of unemployment, social isolation, mental health concerns, low educational achievement, and substance use. Additionally, many of these parents have been exposed to maltreatment during their own childhood, compounding the effects of these risk factors (Berry et al., 2003; English, 1998; Gilbert et al., 2009; USDHHS, 2003).

Within-Child Risk Factors

In addition to environmental and family-level risk factors, certain risk factors within the individual child may increase the likelihood of maltreatment. It is well documented that children with extra needs such as physical, cognitive, or emotional disabilities experience higher rates of maltreatment than the typical population (Baladerian, 1991; USDHHS, 2003, 2012b; Westat, 1993). Very young children, between the ages of birth and 3 years, also experience higher rates of maltreatment, particularly in the forms of neglect, shaken baby syndrome, and nonorganic failure to thrive (USDHHS, 2003). Children with behavioral problems including attention deficits, difficult temperaments, and aggression may also be at higher risk for experiencing maltreatment (USDHHS, 2003). Furthermore, the removal from one or more homes and discontinuity of caregiver, family, and peer relationships associated with out-of-home placement can be a traumatic experience for a child, adding additional risk factors in a potentially already risk-laden life (Bruskas, 2008).

Out-of-home caregiver risk factors. Out-of-home caregivers, such as foster parents and kinship caregivers, who are intended to provide sanctuary from the cascade of risk factors in the lives of maltreated children, are also likely to experience a myriad of adversity and stress, some of which is associated directly with their role in the child welfare system (Jones & Morrissette, 1999). Research has indicated that out-of-home caregivers can feel disempowered through their interactions with child welfare representatives and administrators as well as birth families of the children in their care. This is related to their caregiving practices being habitually overruled or undermined by these parties (Jones & Morrissette, 1999; Land, 2012; Odell, 2008). Additionally, children who have been maltreated often have high levels of need (Stahmer et al., 2005). The emotional and behavioral concerns of children in care, such as aggression, property destruction, disrupted sleep, academic issues, temper tantrums, inappropriate sexual behavior, and grief, can intensify foster parent stress levels and social isolation, and decrease their confidence (Jones & Morrissette, 1999; Land, 2012). The full-time nature of caregiving with minimal respite and relief also minimizes the ability of foster parents to practice activities of self-care in order to cope with the stress and challenges of their role (Jones & Morrissette, 1999).

Out-of-home caregivers of maltreated children may also be at increased risk for development of a spectrum of traumatic responses such as secondary traumatic stress, vicarious traumatization, countertransference, and burnout (Many & Osofsky, 2012). Positions that demand emotional connectedness and empathy, repeated exposure to traumatic events, long hours, as well as organizational issues such as limited resources, unsafe working environments, poorly defined roles, unclear hierarchies, gaps in services, and lack of autonomy can all contribute to these types of negative effects (Many & Osofsky, 2012).

As a result of the adversity associated with providing out-of-home care to maltreated children, increased concerns have developed related to foster parent recruitment and retention. A body of research has evolved in response to shortages

of foster parents and the integral nature of their role in the child welfare system (U.S. General Accounting Office [GAO], 1989). Research by Farmer, Lipscombe, and Moyers (2005) indicates that high levels of foster parent strain during placement, or 6 months prior to a young person's arrival can significantly reduce a foster parent's ability to fulfill caregiving duties—particularly those related to a child's social and emotional well-being—and may be linked to higher rates of disruption. Many foster parents exit foster parenting within a year of the first placement in their home leaving a relatively small group of very engaged and experienced foster parents to carry a large proportion of the caregiving workload at any given time (Gibbs & Wildfire, 2007). Research by Denby, Rindfleisch, and Bean (1999) points to a need for greater support, training, and professional regard for foster parents in order to help them better fulfill and persevere in their roles.

The pervasiveness of risk factors in the lives of families involved with the child welfare system may lead to the negative outcomes regularly observed in maltreated children (Bruskas, 2008). Notably, child maltreatment itself, in the form of physical abuse, sexual abuse, emotional abuse, or neglect is a major risk factor for negative developmental outcomes. Childhood maltreatment is also associated with long-term deficits in educational achievement, increased internalizing and externalizing behavior, physical health problems, aggression, crime, and violence (Bruskas, 2008; English, 1998; Gilbert et al., 2009; Havlicek, Garcia, & Smith, 2013; Leve et al., 2012; Nurius, Logan-Greene, & Green, 2012).

An Emerging Focus on Resilience Promotion

The high levels of risk factors and negative outcomes experienced by children and families in the child welfare system indicate a need for resilience-focused approaches that intentionally develop protective factors to counter these potentially destructive influences (Leve et al., 2012). Consequently, a growing influence of strengths-based, resilience-focused models has become evident in the realm of child welfare (Masten, 2006). This movement reflects a major shift in the thinking of child welfare professionals from a deficit-based focus on safety and mitigation of problems, to a more holistic approach of promoting the overall well-being of children and families.

In 2006 the Center for Mental Health Services (CMHS), within the Substance Abuse and Mental Health Services Administration (SAMHSA) was charged with compiling a report to Congress on research-based prevention and wellness promotion efforts that strengthen parenting and enhance child resilience in the face of adversity. The report concluded by stating that "many evidence-based resilience-building prevention programs exist" and "the critical next step is for more communities to become aware of these programs and to begin implementing them" (USDHHS, 2007, p. 55). Emphasis on resilience-focused models in the child welfare and mental health sector continues to expand and can be recognized in recent reports, initiatives, and resource guides disseminated by influential organizations.

The United States Department of Health and Human Services, Administration for Children and Families advocates for "promoting the social emotional well-being

of children and youth" who have experienced maltreatment, trauma, or violence (USDHHS, 2012a, p. i). The department has published a 2013 Resource Guide, *Preventing Child Maltreatment and Promoting Well-Being: A Network for Action*. In addition to emphasizing promotion of social-emotional well-being, the resource guide stresses the "Protective-Factors" approach, and promoting "Resilience" (USDHHS, 2012a). In 2012, on Children's Mental Health Awareness Day, SAMHSA highlighted the positive results of two if its initiatives that focus on promoting recovery and resilience for children and youth involved in juvenile justice and child welfare systems concluding with the message that "treatment is effective, people recover, and children are resilient" (SAMHSA, 2012, p. 4).

Additionally, The Child Welfare League of America (CWLA), an influential child welfare organization in the United States, has recently released *The CWLA National Blueprint* (2013) with a Guiding Approach that "focuses on maximizing the strengths and resilience of children, youth, and their families within the context of their communities." The CWLA represents a powerful coalition of hundreds of private and public agencies that serve vulnerable children and families. The goal of the *CWLA Blueprint* is to be a catalyst for change, while also serving as the foundation and framework for moving child welfare practice forward. The blueprint emphasizes the responsibility of "everyone" in ensuring the safety, permanency, and well-being of youth, extending the realm of child welfare beyond traditional organizations and services, to families, individuals, communities, providers, and other organizations.

The Devereux Center for Resilient Children

Presaging these national trends, in 1996, the Devereux Foundation, one of the largest nonprofit behavioral health providers in the United States, established the Devereux Center for Resilient Children (DCRC). With the mission of promoting social and emotional development, fostering resilience, and building the skills for school and life success in all children as well as the adults who care for them, DCRC takes an ecosystemic approach to promoting resilience, centering on the within-child protective factors, but emphasizing the interdependency of protective and risk factors within and between systemic levels (Waller, 2001). The DCRC achieves its mission by conducting applied research, authoring resources (assessments and strategy guides), providing training and technical assistance, and developing model programs. One DCRC model program, developed to meet the varied needs of caregivers and children in the child welfare system, is the focus of this chapter.

Your Journey Together

In response to the growing need for relevant resilience-focused interventions in the child welfare system, the DCRC has developed a curriculum for caregivers (including birth, foster, and adoptive parents as well as kinship and non-relative caregivers) in the child welfare system to build resilience in their children and themselves.

Your Journey Together (*YJT*) was developed in partnership with a child welfare organization in Florida, Heartland for Children. This collaboration has enabled ongoing field testing and the collection of formative feedback on the approach including social validity and usability. Literature reviews related to child development and the needs of children in the child welfare system also informed the development of the curriculum. By building resilience in both children and the adults caring for the children, the curriculum is designed to promote the goals of (1) giving children and adults tools for coping with risk, (2) supporting reunification, (3) decreasing disruption rates, and (4) increasing permanency. Currently the *YJT* program is developed for preschool children (birth through 5 years of age) and their caregivers; materials for older children are in development.

Method of Delivery

The *YJT* curriculum emphasizes the relationship between caregivers and a professional in the child welfare system called a Journey Coach, who guides them through the curriculum. A Journey Coach may be a case worker, a social worker, a home visitor, a foster parent licensing staff, or any other child welfare professional who trains or works directly with parents. The *YJT* curriculum is divided into four modules that provide a multifaceted approach to promoting resilience that aligns with the DCRC ecosystemic model. A coach provides ongoing support to parents as they work through each module. This support includes:

- Teaching the key concepts of each module's main topic
- Engaging with the parent in activities that encourage reflection
- Providing guidance as a parent completes the centerpiece measurement tool of each module (modules 2–4 only)
- Facilitating the development of a plan to strengthen protective factors or caregiving practices (modules 2–4 only)
- Ongoing coaching to celebrate accomplishments and to overcome barriers

The modules can be delivered in a group setting or in a one-to-one experience, such as home visiting. This chapter will emphasize the one-to-one delivery of the *YJT* curriculum. When delivered in a one-to-one fashion, coaches may spend 5–10 sessions of 15–20 min in duration with families to fully cover the material in each module. Content can be covered in longer and fewer sessions, depending on the needs of the parent and the timeframes of the program in which they are enrolled.

Module 1: Introducing Resilience

The first module provides caregivers with an introduction to resilience, risk factors, and protective factors. It sets the stage for subsequent discussions of promoting both the caregivers' and their children's resilience. Consistent with principles of adult

learning, *YJT* provides many opportunities for caregivers to actively engage with the material. This introductory unit combines a series of reflection activities with the use of two DCRC resources which support the caregiver in learning about the meaning and importance of resilience. These resources include *For Now and Forever: A Family Guide for Promoting the Social and Emotional Development of Infants and Toddlers* (Mackrain, Golani, & Cairone, 2009) and *Promoting Resilience For Now and Forever: A Family Guide for Promoting Social and Emotional Development of Preschool Children, Second Edition* (Mackrain & Cairone, 2012). Because this module presents background information and does not delve into personal or family circumstances, it is sometimes delivered in a group format.

Three Core Modules of *Your Journey Together*

Beyond the Introduction to Resilience are three core modules which delve more deeply into supporting the resilience of the child and caregiver. All three modules share a common framework; each contains an assessment, or measurement tool, the results of which are used to select individualized, research-informed strategies to promote the acquisition of protective factors leading to enhanced resilience. In the following narrative, a case illustration is presented to illustrate the three core modules and the tenets of the *YJT* curriculum. The case follows the journey of Darla and her 19-month-old granddaughter, Karyn.[1] Darla has voluntarily enrolled in a home visitation program designed to support placement stability and the mental health of children who have been either temporarily or permanently removed from their birth parents. Darla has experienced the first module of *YJT*, *An Introduction to Resilience*, by participating in group training held at the Department of Social Services and has now been assigned a Journey Coach, Jordana.

Adult Resilience

Caregivers linked with the child welfare system are often facing multiple stressors that put their caregiving practices at risk (Jones & Morrissette, 1999; USDHHS, 2003). Parents may not be able to adequately respond to the cues and needs of their developing child causing ongoing stress in the adult–child relationship. This kind of stress can disrupt the young child's developing brain; negatively effecting the development of self-regulation and cognitive skills—essential for school readiness and life success. Responsive and nurturing caregiving has shown to be a powerful protective factor to offset stress and to encourage healthy child development (Shonkoff, 2011). The *YJT* module, *Promoting the Resilient Adult Caregiver*, focuses on strengthening

[1] The case study is based on an actual *YJT* family who gave permission for its use. Identifying information has been changed.

Devereux Adult Resilience Survey (DARS)

by **Mary Mackrain**

Take time to reflect and complete each item on the survey below. There are no right answers. Once you have finished, reflect on your strengths and then start small and plan for one or two things that you feel are important to improve. For fun and practical ideas on how to strengthen your protective factors, use the chapters in this book. For a free copy of the DARS visit www.centerforresilientchildren.org.

Items	Yes	Sometimes	Not Yet
Relationships			
1. I have good friends who support me.			
2. I have a mentor or someone who shows me the way.			
3. I provide support to others.			
4. I am empathetic to others.			
5. I trust my close friends.			
Internal Beliefs			
1. My role as a caregiver is important.			
2. I have personal strengths.			
3. I am creative.			
4. I have strong beliefs.			
5. I am hopeful about the future.			
6. I am lovable.			
Initiative			
1. I communicate effectively with those around me.			
2. I try many different ways to solve a problem.			
3. I have a hobby that I engage in.			
4. I seek out new knowledge.			
5. I am open to new ideas.			
6. I laugh often.			
7. I am able to say no.			
8. I can ask for help.			
Self-Control			
1. I express my emotions.			
2. I set limits for myself.			
3. I am flexible.			
4. I can calm myself down.			

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Fig. 8.1 The Devereux adult resilient survey

the caregiving adult's internal protective factors and increasing the ability to provide nurturing and stable care for children. Two core resources provide the framework for this module, *The Devereux Adult Resilience Survey* (DARS; Mackrain, 2009; see Fig. 8.1) and *Building Your Bounce, Simple Strategies for a Resilient You* (Mackrain & Bruce, 2009).

The DARS (Mackrain, 2009) is a 23-item self-reflection tool that provides adults with information about their internal protective factor strengths, specifically, Initiative, Self-Control, Relationships, and Internal Beliefs. Caregivers rate themselves as "Yes," "Sometimes," or "Not Yet" exhibiting 23 strengths-based behaviors, which were identified through a thorough literature review of adult resilience, national focus groups with adults who care for and work on behalf of young children, and conversations with national experts.[2]

The Journey Coach then assists caregivers in using information from the DARS (especially items rated as "Not Yet") to build protective factor strengths so that they can better cope with adversity and the stresses of daily life. *Building Your Bounce, Simple Strategies for a Resilient You* (Mackrain & Bruce, 2009) is a guide that parents can use to reflect on and plan for building their strengths related to resilience. This guide provides research-informed strategies that align with each of the items on the DARS.

Adult resilience in action. Darla looks out the window nervously awaiting a visit from Jordana, her "Journey Coach." This was the first home visit and Darla wondered what Jordana might think when she enters her home. She had little time to straighten up as she was at the children's school last night for parent-teacher conferences. Darla saw Jordana pull up to the front of the house and wave at her with a big smile. "Jordana seems so positive and friendly," Darla thought, and she began to calm down. Jordana had been the trainer for a series on resilience at the local Department of Social Services, and Darla had found a sense of comfort in Jordana's style. She always listened and made everyone feel safe to share their thoughts. Now Jordana was going to work with her at home to develop some strategies to get everyone "on the right track." Times sure had been tough, Darla thought to herself, "Me, a parent again at 61. I didn't do such a great job with my own children. I hope I can do better with Karyn."

As Jordana came into the house she expressed her gratefulness to Darla for letting her visit today. They sat on the couch and Jordana asked, "So, I am wondering how you are getting along with all of these changes in your life." Darla didn't know where it came from but she felt safe and began sharing her story with Jordana, at times crying and at other times sharing frustrations and fears.

Jordana quietly listened and then said, "This is a lot to take on, and I hear your feelings of frustration and fear, and also your love for your family." Jordana shared, "As part of the *YJT* program that you heard about at the training, I wonder if we might partner to support you in your life journey. Partnering means we're honest, respectful and accountable to each other." Darla began to feel excited, "Usually, people who help us focus on the children, you're here for me?" Jordana responds, "Yes, for you to provide everything the children need, we need to make sure you're filled up with strength and hope and are ready for this new family journey."

"Well, how much work will this be?" Darla asks. Jordana responds, "We'll set that up together. I come weekly at times that work best for your family. We can figure out what works for you. We do what feels comfortable at each visit until we get to a place that you feel you're ready to move on to the next subject, child resilience. We can work together for as long as you feel we need to. Together we will figure this out! Sometimes, if times are tough, we might just talk and that's okay. I noticed at the training on resilience that you liked hands-on work and reflection. My next visits will also include more of those types of

[2] A research study demonstrating the reliability and construct validity of the DARS was completed in 2009 and is available at the DCRC website, http://www.CenterForResilientChildren.org.

activities. We can begin by talking about your protective factors, or by talking about Karyn's protective factors and you as a caregiver." "You mean start with my own relationships and stuff like that?" Darla asks. "Yes, is that where you would like to begin?" answers Jordanna. "Yeah, that sounds good. I probably have a lot of work to do on me!"

After several visits doing reflection activities related to adult protective factors with Jordanna, such as listing the strengths of individuals who bring her happiness, and thinking about what helped her get through a significant challenge, Darla has completed her DARS and Jordana is beginning to facilitate the planning process. Darla chooses to work on her Internal Beliefs about herself, as she feels this impacts her attitude about the children. She chooses to work on the DARS item, "I have personal strengths," one of the items she rated as rarely happening. Together Jordana and Darla look at the Building Your Bounce Guide for ideas and Darla wants to try a strategy called, "Making Time for Gifts." She would spend the next week jotting down her personal talents or gifts in her journal and then she and Jordana would brainstorm ways she could begin to use those gifts more often. As a result of this process, Darla found herself looking forward to her time with Jordana and started to notice the gifts and talents of the children a little more often.

As illustrated above, Jordana used a relationship-based approach to guide Darla through a reflective experience critical to recognizing, interpreting, and planning for the strengthening of her own protective factors. This work is essential to improving the quality of care Darla provides to the children in her life. The accompaniment of the reflective activities found in the *Journey Coach Guide*, the research-based *Devereux Adult Resilient Survey*, and the *Building Your Bounce* guide (Mackrain & Bruce, 2009) provide flexible and easy-to-use strategies to assist in the journey. The DARS is divided up into protective factors, and strategies in *Building Your Bounce* are organized by protective factor and item. An example of a strategy for the protective factor "Relationships," under the item "I provide support to others" is simple: "Write a short thank-you note to a mentor or someone who has influenced your life in a positive way. Let him or her know how you are doing and what role he or she played in your life."

Child Resilience

The *YJT* module, *Nurturing the Resilient Child,* supports caregivers in the identification, interpretation, and strengthening of children's within-child protective factors. Parents are introduced to the Devereux Early Childhood Assessment for Preschoolers, Second Edition (DECA-P2; LeBuffe & Naglieri, 2013) and the Devereux Early Childhood Assessment for Infants and Toddlers (DECA-I/T; Mackrain, LeBuffe, & Powell, 2007). These instruments are strength-based, standardized, norm-referenced, reliable, and valid behavior rating scales which assess Initiative, Attachment/Relationships, and Self-Regulation skills of children ages 4 weeks up to 6 years (LeBuffe, Ross, Fleming & Naglieri, 2013).[3] After parents complete the DECA-P2 or

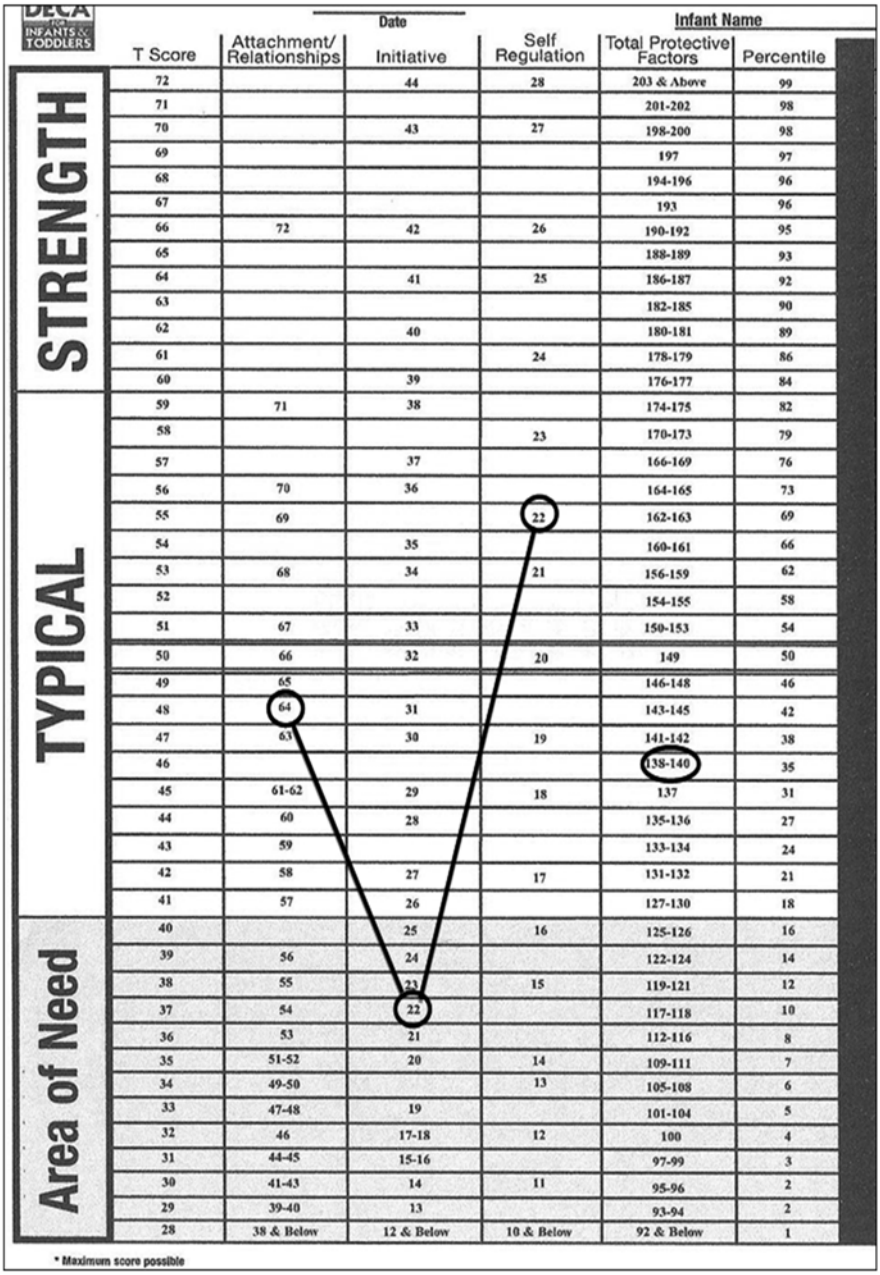
[3] A similar instrument, The Devereux Student Strengths Assessment (DESSA; LeBuffe, Shapiro, & Naglieri, 2013) exists for the school-age population (5 through 14 years), and will be incorporated into *Your Journey Together* as elements of the program are developed for caregivers of school-age children and youth.

DECA-I/T, the Journey Coach works with them to reflect on results and to plan intentional strategies that build a child's strengths related to resilience. *YJT* includes a set of research-informed best practice strategies that parents can use during the planning process. These strategies are organized by the protective factor they support: Initiative, Attachment/Relationships, or Self-Regulation as well as the developmental age range of infant, toddler, or preschooler. Furthermore, the strategies are designed to fit into a family's typical daily routines. Once a plan is in place, it is recommended practice that Journey Coaches continue to provide support to parents on their journey through the ongoing use of the *YJT* strategies to support the development of protective factors.

Child resilience in action. Darla is feeling eager and ready to begin focusing on her granddaughter, Karyn's, protective factors. Karyn is 19 months old and has lived with Darla since she was 6 months old. Her mother is incarcerated and has lost her parental rights. Darla is going through the process of adopting Karyn. "Karyn has been through so much in her young life. We call that risk, right?" Jordana reminds Darla that helping Karyn to strengthen her protective factors will help to offset Karyn's risk and increase Karyn's likelihood of a positive and happy outcome in school and life. "I want that so badly for Karyn! Until now, I haven't felt hopeful that would happen. I have been so afraid of doing all the wrong things. I'm really grateful to be doing all this with you" Darla says.

As part of the *YJT* curriculum, Darla and Jordana spend several visits reflecting on the meaning of the three within-child protective factors: Initiative, Attachment/Relationships and Self-Regulation. Darla completes a DECA-Toddler (Mackrain et al., 2007) assessment on Karyn and together they discuss the results starting with the positive (see Fig. 8.2). "Karyn has so many strengths already! Her results show that she is in the typical range in her Self-Regulation and Attachment/Relationships skills. This means that compared to other children her age she is doing similarly. Darla says she is "very relieved" and is thrilled to know that Karyn has strengths to build upon. Jordana mentions that Darla had rated Karyn in the area of need range for Initiative. Jordana shared that this means some of the skills related to taking action and getting ones needs met was an area that might need some extra support. Darla agrees. "I think I do too much for her and don't let her try things on her own. I'm afraid she'll fail and I want to make everything ok for her." Jordana acknowledges Darla's strong desires to help Karyn be successful. She helps Darla look through the *YJT* child strategies. Darla would like to work on encouraging Karyn to try new things and do things on her own. She is going to stay close by at meals and during play and encourage Karyn in her attempts at trying to do things independently. If Karyn needs help Darla will be there to help her, but will not offer help too quickly, allowing Karyn some time to keep trying on her own. Jordana encourages Darla to write about these experiences in her journal at the end of every day. Over the next several visits together, Darla shares her successes and challenges with Jordana. "It sounds like you've been working so hard on this! Is there anything I can help you figure out or do differently?" asks Jordana. Darla expresses her confidence, "I just want to keep doing what I'm doing. It's been hard for me, but really fun to watch her keep trying to do hard things. Yesterday she kept trying and trying for almost 5 min to get her peas on her spoon. She did it and gave me a huge smile! Before, I would have done it for her because I didn't want her to get food all over the floor. I can see how it's important to let her do things on her own."

Darla and Jordana agree that they are ready to move on to the next module. As the work progresses, Jordana and Darla regularly revisit aspects of the child module to check in and talk about progress, accomplishments and setbacks. Eventually they select new goals and strategies when Darla feels they are ready. Over the course of 2 years, Darla completed three follow-up DECA assessments on Karyn. The results steadily improved and at the end of Darla's work in the program, Karyn was in the strength range in her Initiative and Attachment/Relationships and in the typical range in her Self-Regulation.



DECA for INFANTS & TODDLERS

Date

Infant Name

	T Score	Attachment/ Relationships	Initiative	Self Regulation	Total Protective Factors	Percentile
STRENGTH	72		44	28	203 & Above	99
	71				201-202	98
	70		43	27	198-200	98
	69				197	97
	68				194-196	96
	67				193	96
	66	72	42	26	190-192	95
	65				188-189	93
	64		41	25	186-187	92
	63				182-185	90
	62		40		180-181	89
	61			24	178-179	86
	60		39		176-177	84
TYPICAL	59	71	38		174-175	82
	58			23	170-173	79
	57		37		166-169	76
	56	70	36		164-165	73
	55	69		22	162-163	69
	54		35		160-161	66
	53	68	34	21	156-159	62
	52				154-155	58
	51	67	33		150-153	54
	50	66	32	20	149	50
	49	65			146-148	46
	48	64	31		143-145	42
	47	63	30	19	141-142	38
	46				138-140	35
	45	61-62	29	18	137	31
	44	60	28		135-136	27
	43	59			133-134	24
	42	58	27	17	131-132	21
	41	57	26		127-130	18
Area of Need	40		25	16	125-126	16
	39	56	24		122-124	14
	38	55	23	15	119-121	12
	37	54	22		117-118	10
	36	53	21		112-116	8
	35	51-52	20	14	109-111	7
	34	49-50		13	105-108	6
	33	47-48	19		101-104	5
	32	46	17-18	12	100	4
	31	44-45	15-16		97-99	3
	30	41-43	14	11	95-96	2
	29	39-40	13		93-94	2
	28	38 & Below	12 & Below	10 & Below	92 & Below	1

* Maximum score possible

Fig. 8.2 The figure above displays Karyn's initial profile on the DECA I/T. Karyn shows typical scores in Attachment/Relationships, and Self-Regulation, and an area of need in Initiative

In the above vignette, Jordana coaches Darla on the importance of building Karyn's protective factors. As Jordana supports Darla through gaining an understanding of the three within-child protective factors, completing the DECA, interpreting the DECA results, and using the results to bring about change, the experience empowers both Darla as a parent and Karyn as a child who can use her skills and actions to get her needs met—important lifelong skills.

Caregiving Practices

The *YJT* module, *Caregiving Practices that Promote Resilience*, supports caregivers in identifying the strengths and needs of their own parenting practices that can be used to promote the resilience of young children who have experienced the trauma of involvement in the child welfare system. The focus is on practices related to Consistency, Attuned Relationships, and creating a safe and loving Environment. These three components can be remembered using the acronym CARE. After several sessions of reflection activities designed to support the parent's learning and understanding of these three components, parents are introduced to the 20-item CAREgiving Checklist, a reflection tool that was developed after an extensive review of literature related to children who have experienced trauma and involvement in child welfare system. Items on the CAREgiving Checklist target the three areas of parenting practice, Consistency (e.g., provide predictable routines), Attuned Relationships (e.g., support their unique characteristics), and Environment (e.g., create a welcoming space to live). Caregivers are asked to reflect on whether they do these things for their child "Almost Always," "Sometimes," or "Not Yet."

Included in this module is a set of research-informed strategies, *Strategies for Strengthening Caregiving Practices that Promote Resilience,* that parents can use to improve their parenting skills. These strategies are organized by the CARE checklist areas as well as the developmental age range of infant, toddler, or preschooler. The strategies are designed to easily fit into a family's typical daily routines.

Caregiving practices in action. Jordana begins by asking Darla to think about the meaning of the words that make up the acronym C-A-R-E. "I think Consistency means the routines we do every day. I am pretty good at that. We wake up at the same time and have breakfast together every morning. Then Karyn has some time to play before we get ready to go to Miss Pamela's for the day. I always pick her up and we have dinner together. I give her a bath and she plays or watches a video or we read stories before bedtime. The routines help me feel organized." Jordana acknowledges Darla's thoughts. "Yes, that is exactly what we mean by consistency! It sounds like you are doing a lot of good things that help Karyn feel safe and develop trust." Darla didn't know routines were so important for trust to develop. "I guess I do more things right than I thought! I didn't know routines help children feel safe."

After also discussing the meaning of Attuned Relationships and a safe Environment, Darla completes a CAREgiving Checklist. They work on one section at a time. Darla notices she has many more strengths than she expected. "I was a little afraid to do this. I don't always feel too confident in my parenting, but I feel pretty good about myself right now!" Most of Darla's strengths are in the area of Consistency. She chooses to work on Attuned Relationships and decides to set a goal to spend more time each day connecting with Karyn

and talking more about feelings. "Talking about feelings is hard for me. It is something I need to work on myself, so I think Karyn and I can learn this together. Also, I am always focused on getting things done and I don't think to actually sit down and play with Karyn. I want to change that." Jordana helps Darla look through *Strategies for Strengthening Caregiving Practices that Promote Resilience*, a resource within the *YJT* curriculum. Darla wants to try several things she finds. She chooses to try narrating Karyn's emotions and exploring feelings during challenging times. She also chooses to play every day after dinner and to have more fun together. Darla writes these strategies down on a simple planning form and hangs it on her refrigerator as a reminder to do them. "I might forget because these things are new to me." Jordana assures her that this is okay and that change can take time. "I am so impressed that you are choosing to work on things that don't come easily. Change can be really hard. You have changed so much already! Be gentle with yourself. It's okay if you don't do everything perfectly! I will be here for you to help you celebrate your accomplishments and figure out how to overcome any barriers you run into. We can go slowly." Darla and Jordana spend time in the next several sessions talking about progress and challenges.

Over the next 2 years, Darla continues to reflect and work on strengthening her attuned relationship with Karyn. "I never connected this much with my own kids. I was always so busy and didn't realize how important it is. I've learned so much! My friends notice how different I am—happier and more patient. I am a more attentive parent now and DEFINITELY more confident! They say they can't believe how great I am doing—they were pretty worried about me having to be a parent to my granddaughter."

As illustrated above, the research-informed tools and resources to support caregiving practices that build resilience, in combination with relationship-based coaching, provide opportunities for Darla to reflect, recognize her strengths, and work on her self-selected caregiving goals in a safe and comfortable manner.

Darla and Jordana continued their work together for two years. Darla also participated in Parent–Child Interactive Therapy which was offered by the program. Darla felt that her work on *YJT* helped her to be better prepared to benefit from those therapy sessions. "I learned so much about what Karyn needs and about being more tuned in with Karyn from Jordana. I felt a lot better about myself, too, so that made it a lot easier to do the therapy."

Preliminary Results from Field Testing

Preliminary Data

A Child Welfare Specialist at the DCRC has field tested elements of the *YJT* curriculum by working with out-of-home caregivers, birth parents, young children, and professionals at Heartland for Children and the other US pilot sites. Preliminary quantitative outcome data have been collected from families involved in field testing, throughout the development of the curriculum. In particular, the first *YJT* module, *An Introduction to Resilience*, has been delivered to many out-of-home caregivers as a three-hour training. The module overviews resilience, risk factors, protective factors, and the three key areas addressed in the core modules.

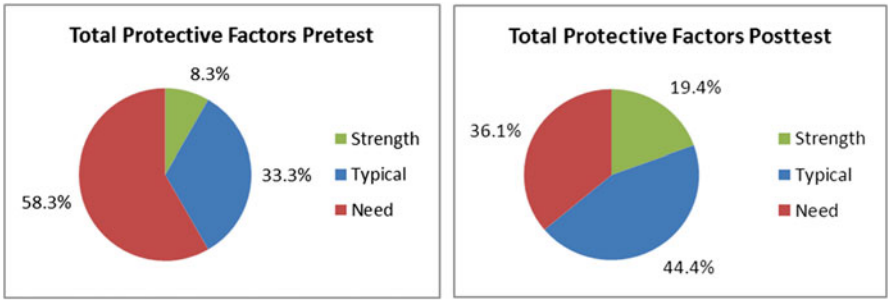


Fig. 8.3 Pre- and posttest score categories (Strength, Typical, Need) on the DECA assessments for 36 children who have received elements of the *YJT* intervention

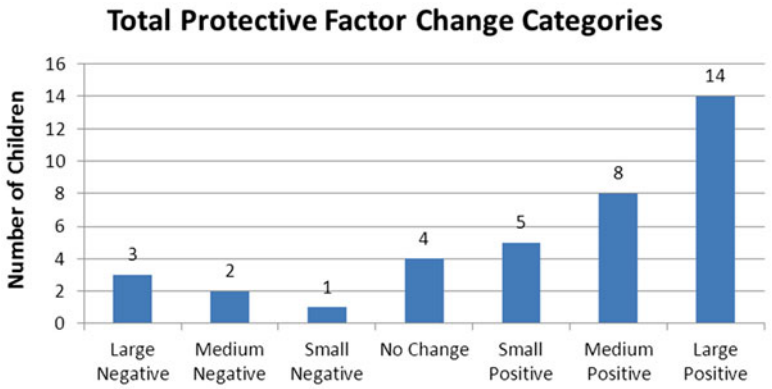


Fig. 8.4 Display of change categories of 36 children who received elements of *YJT* as determined by Cohen's (1988) criteria for interpreting *d*-ratios, a measure of effect size

A record of *YJT* intervention elements used with families during field testing is maintained as a fidelity measure, along with DCRC assessment results of children in these families. Analyses of these preliminary data suggest that children with foster parents who have received elements of the *YJT* curriculum at Heartland for Children show improvements in protective factor scores from pre- to posttest on the Devereux Early Childhood Assessments for Infants, Toddlers, and Preschoolers (see Fig. 8.3).

The figures below display pre- and posttest ratings of 36 children in care with parents who have piloted elements of the *YJT* curriculum. For this group of children, the difference between pre- and posttests on each scale, and the Total Protective Factors summary scale are statistically significance at a level of ($p < 0.05$). Seventy-three percent of these children showed positive changes, with 37.8 % showing large positive changes using Cohen's (1988) criteria for interpreting *d*-ratios, a measure of effect size (see Fig. 8.4).

Data have also been collected on pilot users' reception of the *Introduction to Resilience* module training through a 4-item questionnaire administered at the end of training delivery. Three Likert scale items and one free response item gauge the usefulness of, and knowledge gained from, the delivery of Module 1. Items include the following: (1) The training met my interests and needs, (2) I feel that I will be able to use the knowledge and skills presented, (measured on a 4-point Likert Scale of Strongly Agree to Strongly Disagree), and (3) How useful are the handouts and materials? (measured on a 3-point Likert Scale of Very Useful, Somewhat Useful, Not at all Useful). Results from these questionnaires have steadily become more positive since 2008 with training delivered in 2011–2012 indicating 100 % positive feedback.

Qualitative Data and Implementation Challenges

YJT reflects a paradigm shift, called for by the Child Welfare League of American in their "Blueprint" document. The shift emphasizes working beyond safety and protection to actively promoting the resilience of children and families (CWLA, 2013). As is often the case with fundamental change, effective implementation of *YJT* poses significant challenges for agencies, staff, and parents. Qualitative feedback from pilot users at sites around the United States has informed the development of the *YJT* curriculum to support its use in a variety of child welfare settings. Focus groups comprised of agency administrators, and staff with different levels of familiarity with the curriculum have been held periodically to elicit reactions to the content, structure, and usability of the curriculum. A variety of strengths and areas for program improvement have been highlighted in focus groups; however, for the purposes of this chapter, two influential implementation challenges will be discussed: competing priorities and adult engagement.

Competing Priorities

In the child welfare system, staff members often have limited resources to meet the needs of their clients (Many & Osofsky, 2012). Users in focus groups have repeatedly indicated that a primary challenge with implementation of *YJT* centers on the competing priorities and responsibilities of child welfare workers. Comments such as "I don't think staff can handle one more thing" and concerns around time for staff training and competency development have frequently arisen. Focus groups revealed concerns over whether child welfare workers could realistically implement *YJT* to the extent expected. In response to these limitations, *YJT* was developed to minimize the demands on staff. Although training is available, the curriculum was developed so that the Journey Coach can deliver the content with no additional training other than reading the Journey Coach Guide, which serves as the *YJT* program manual. Additionally, personnel at a variety of levels, both licensed and unlicensed, are able to facilitate the program.

Individuals in focus groups repeatedly underscored the desire for a streamlined, prescriptive *YJT* protocol. For example, one staff member expressed the need for "talking points, key phrases, and key messages—if you are short on time what to hit on." Concerns were also raised about the number of books, pamphlets, and resources required of the child welfare worker who is often traveling from home to home. One focus group participant said "Sometimes I forget to bring all of the stuff that you need as a worker. I brought the wrong scoring sheet one time—having them in one book was able to help me 'wing it' when I forgot it." The Journey Coach Guide was developed to take the expressed needs of child welfare workers into consideration. The curriculum contains both explicit instructions for the coach and reproducible masters of all handouts for families. This minimizes the time required for preparation of each session.

The curriculum, while structured, is also designed to be flexible. It can be delivered in multiple formats and in varying numbers of sessions to accommodate variability and limitations in staff time, depending on roles, caseloads, and competing demands for family time. For instance, the *YJT* program can be delivered in multiple sessions with individual families or in fewer, but longer sessions with groups of families. In addition, knowing that time during a home visit may be needed to address other issues, the modules have been divided into sessions that can be accomplished in 15–20 min. This allows the Journey Coach to arrange the proper amount of time during each visit to conduct the lesson and introduce an activity that the parent will be doing independently between visits.

Adult Engagement

Field testing and focus groups revealed that both staff and parents can be reluctant to fully embrace implementation of the *YJT* program. The program follows the direction of the CWLA blueprint, evolving the traditional role of the child welfare worker from "lifeguard" focused solely on safety to "swim instructor"[4] focusing more broadly on child and family well-being and teaching parents and children to be more resilient. This type of transition often requires more effort from staff, which can engender resistance. Similarly, parents may not commit to the *YJT* model if they view it as either unnecessary or, perhaps, the latest intervention "flavor of the month" that they are subjected to. Without both staff and parent buy in, the chances of positively impacting the resilience of the child in care is greatly diminished.

A useful strategy to garner adult buy-in and commitment to the resilience model is to begin by focusing on the adult's resilience. For parents, when they recognize and appreciate the resilient characteristics of adults whom they admire and respect

[4]The authors would like to acknowledge our colleague, Rachel Tobin-Smith, M.S.W., who first used these terms to describe the paradigm shift for staff.

and especially when they focus on building their own resilience, they often begin to appreciate how important it is to nurture the resilience of their child. Similarly, staff may become more aware of their own social and emotional strengths and needs, and more effective at dealing with the secondary stress so prevalent in the child welfare system, as they facilitate these modules with parents. This better understanding of their own resilience can lead the Journey Coach to become a stronger advocate for families and more excited and engaged in the program. One focus group member stated of this approach "Parents are so focused on what's not going on with their children in busy day-to-day life that they are not thinking about what they can do for themselves. I think many of us are like that. We need to figure out ways to help the parents understand that the better off they are the better off their children will be." The risk factors in the lives of caregivers in the child welfare system are well recognized. By addressing the adult's needs, *YJT* not only engages the adult, but mitigates additional risk factors which can trickle down to the child.

Limitations and Future Directions

The *YJT* curriculum is still in the process of being developed, tested, and refined. As the curriculum is published and further disseminated, The DCRC aims to continue to build the evidence base for its effectiveness at meeting the proximal goals of enhancing adult resilience as measured by the DARS, increasing children's protective factors as measured by the DECA-I/T and DECA-P2, and improving parenting skills as measured by the CAREgiving checklist. The *YJT* theory of change posits that by enhancing these three proximal outcomes the distal outcomes of (1) giving children and adults tools for coping with risk, (2) increasing permanency, (3) decreasing disruption rates, and (4) supporting reunification will be more likely. While the current data appear promising, the nature of data collection has presented a number of limitations. The process for collecting data during field testing has resulted in a small convenience sample evaluating elements of *YJT* versus the curriculum as a whole. Future studies should aim to collect a larger sample of participants as part of a controlled research study on the delivery of the curriculum from start to finish, as recommended in its best practice model. Future studies may also compare the differences between one-on-one and group delivery of the curriculum.

An integral part of the *YJT* curriculum is the relationship built between the Journey Coach and the caregiver. The coach must provide supportive guidance to caregivers while promoting skill and knowledge acquisition. With these considerations in mind, it becomes evident that the coaching approach itself should be further explored and understood. With the knowledge that helping professionals are at increased risk for development of a spectrum of traumatic responses such as secondary traumatic stress, vicarious traumatization, countertransference, and burnout (Many & Osofsky, 2012), the resilience of the coaches themselves also becomes a concern. Future additions to *YJT* will build upon coach training and support in order to address these concerns.

The case study of Darla, Jordanna, and Karyn focuses on building resilience in a young child, an approach that aligns with the current developmental state of the *YJT* curriculum. To date, the *YJT* curriculum predominantly focuses on strategies developmentally appropriate for parenting children birth through 5 years of age. While young children are overrepresented in the child welfare system (USDHHS, 2012b), it is apparent that similar resources are needed for school-age children. As the *YJT* curriculum continues to evolve, the DCRC plans to expand upon the current resources to include more specific strategies for building the resilience of school-age children and youth.

Conclusion

The DCRC plans to continue to develop resilience-focused resources, interventions, and professional development opportunities that are easy to understand and use within varying service lines and programs within child welfare. While some researchers caution against the use of the construct of resilience, due to conceptual complexity, (Canavan, 2008), others laud its heuristic value, emphasizing its practical usefulness (Prince-Embury & Saklofske, 2013). The DCRC focuses on the usefulness of the resilience construct as a heuristic for practice application and development of intervention. With this in mind, DCRC aims to contribute to the wave of literature focusing on questions about intervention, and how to create or promote resilience through practice and policy (Masten, 2006). This focus aligns with national trends which increasingly emphasize strengths-based, resilience-focused models for services to children and families (CWLA, 2013).

Ongoing work at the DCRC will support the translation of research to practice for services to families in the child welfare system. An 8-step model for bridging the research-practice divide and developing, testing, and deploying services within practice settings has been proposed by Hoagwood, Burns, and Weisz (2002). The model outlines a series of steps for developing scientifically valid services which are grounded, useable, and relevant to the practice context:

1. Developing and manualizing the treatment protocol
2. Conducting an initial efficacy trial
3. Conducting a series of single case applications
4. Conducting an initial effectiveness trial
5. Conducting a full effectiveness trial
6. Testing the effects of moderators and mediators
7. Assessing goodness-of-fit within the organizational or practice context
8. Examining disseminability and quality in a variety of organizational or practice contexts

The *YJT* curriculum, illustrated through the case of Jordanna and Darla, has been through Step 3 of this process wherein a series of test cases are referred to trained practitioners. These practitioners have delivered the curriculum to inform the

refinement and development of the *YJT* protocol based on individual variations experienced in the practice setting. The next step in the development and testing process will be to establish an initial effectiveness trial which tests the curriculum using random assignment in the child welfare practice setting. The DCRC anticipates embarking upon this next step with the *YJT* curriculum in order to further establish the science behind this intervention.

As DCRC continues to work towards the mission of promoting social and emotional development, fostering resilience, and building skills for school and life success in all children as well as the adults who care for them, the confluence of risk factors and adversity facing families in the child welfare system cannot be ignored. The DCRC will continue to intensify its strengths-based, resilience-focused work with this population in consort with rising national attention to the benefits of this effort in helping children and families flourish.

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Chapter 9
Building Resilience in Young Children the *Sesame Street* Way

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Theoretical and Research Bases

Resilience in Young Children

Young children face many challenges in their daily lives and are also directly affected by stressful life situations that their families may experience. These challenges can vary in level of severity and in location within the bioecological system of a child's environment—each of which differentially impacts development (Bronfenbrenner, 2005). At the child level, these challenges include learning how to master a skill such as tying shoes or writing the letters of their name, to the more interpersonal challenges of developing friendships or resolving conflicts with peers. At the family level, some children are faced with more stressful situations such as inconsistent parenting, financial instability, divorce, or the incarceration of a parent. At the community level, some children live in unsafe neighborhoods and attend poor quality schools. More distal challenges that affect development involve institutionalized prejudice, cultural incongruence, disparities in healthcare or access to healthy foods (see Garcia Coll et al., 1996). Regardless of which level(s) these challenges stem from, challenges at any level impact other levels of a child's environment bidirectionally and tend to initiate a rippling effect (Bronfenbrenner & Morris, 2006). These well-known proximal and distal risk factors are associated with negative developmental outcomes. Despite the challenges children encounter, however,

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normally developing children are resilient or have the capacity to overcome these adversities and succeed (Masten, Best, & Garmezy, 1990).

Protective factors are those that promote resilience and originate from multiple sources found within the child, the family, and the community. These protective factors are essential ingredients for mitigating the risk factors mentioned above and for building physical and mental health, emotional well-being, social relationships, and academic achievement. Masten and Garmezy's (1985) "immunity-versus-vulnerability" or the protective factors model is a theoretical model which suggests that certain personal attributes can either "dampen or amplify" the impact of stress. The more protective factors children have the better they are able to cope with life stressors.

Research studies document a number of protective factors in children which include average or better intelligence, social competence, emotion regulation, an internal locus of control, and a sense of self-worth (Masten et al., 1990; Oades-Sese, Esquivel, Kaliski, & Maniatis, 2011; Rutter, 1990; Werner & Smith, 1992). Similar protective factors have been identified in economically disadvantaged children faced with significant barriers to success such as peer pressure, discrimination, and prejudice (Ford, 1994). Furthermore, determination, motivation, inner will, independence, realistic aspirations, and a heightened sensitivity to others and the world around them were also identified as crucial protective factors in children (Reis, Colbert, & Herbert, 2005).

In families, resilience is evidenced by close nurturing relationships that provide emotional support and positive and open communication between family members (McCubbin & McCubbin, 1996). Families who set high expectations, provide routines, and instill core values are likely to foster resilience in children (Seccombe, 2002). Furthermore, trusting and supportive family relationships are the foundations from which these essential child-level protective factors develop (Orthner, Jones-Sanpei, & Williamson, 2004; Werner & Smith, 1989).

Protective factors that originate from the community include having access to basic needs (i.e., clean air and water, food, adequate housing) safe neighborhoods as well as equitable public policies that determine who is or is not eligible to receive benefits and services. Community resources that offer support to children and their families confronted with stressful life situations are key to building resilient families. Community partnerships, in particular, comprised of families, schools, and organizations help families combat adversity and systemic barriers in the community (Epstein & Sanders, 2000). Sesame Workshop is one such organization involved with community outreach to support the educational needs of children and foster healthy and strong families.

In sum, challenges and stress are part of young children's lives and the better they are equipped to deal with these challenges, the more likely they are to succeed. Building protective factors within the child, family, and the community is essential in developing healthy and productive individuals who make lifelong contributions to society.

Learning as Active Engagement

From our developmental perspective, the ability to be resilient is not innately given to some and not to others—with adequate guidance and support, every child has the

capacity to become resilient. If development is generally understood as a matter of children learning about how to learn (Bickhard, 2007), then such "meta-learning" is what enables children to successfully adapt to changing situational and environmental circumstances. In turn, the possibility of meta-learning means that children can learn to become resilient. There are two general orientations that try to explain how learning comes about that correspond to two general perspectives on the nature of knowledge (Allen & Bickhard, 2011). For the first, knowledge is fundamentally *passive* and learning is a matter of having the world "impress" itself into the mind. For the second, knowledge is fundamentally *active* and learning is a matter of having to "construct" how to successfully interact with the world. While the former view is dominant in contemporary developmental psychology (Allen & Bickhard, 2013), the latter view is more common in educational scholarship with its most thorough development by Piaget (1954). For Piaget, knowledge was emergent from action and therefore children needed to actively explore their environment in order to learn about the world. Although direct action on the world becomes less relevant as children develop through the preschool years, the active and constructive nature of learning remains essential.

Taking the active and constructive nature of learning seriously means recognizing that, ultimately, it is the child who must do the learning—it is the child who must create the "new" knowledge for themselves. Consequently, if learning is both an *effortful* and *creative* process, then there are two major components involved with facilitating such learning. The effortful part implies the need for motivation and the creative part implies generating something that is cognitively new. While a child's motivation to learn can be harnessed through multiple methods, the crucial point is whether or not what they are learning is interesting to them. Perhaps, the easiest way to generate interest for preschoolers is through game-like activities that involve interactions with other people. While not everything that a child needs to learn can be made fun, when boring "facts" are learned in the service of developing new abilities, we find that children are more than willing participants. That is, fun activities can be supplemented by harnessing children's intrinsic motivation to expand their own agency. Intrinsic motivation for agency is most evident in infancy when the child must learn to coordinate actions in order to achieve a goal (e.g., grabbing an object) but that agentive motivation is present throughout development (e.g., preschoolers who try to help their parents with household chores).

Our approach towards pedagogy places the locus of control within the child who is engaged in the process of learning. Accordingly, our role as educators is not to transfer information into empty and passive receptacles, but rather, to guide, constrain, and enable (i.e., scaffold) the generative activity of the child as they explore and integrate their understanding of new information with what they have already learned. The particular path that a child takes on their way to understanding new concepts will be unique and that is part of the reason that genuine learning is so difficult. Consequently, it is important to find different mediums and situations that will fit the needs of different types of learners. Further, given that knowledge and understanding comes in degrees, it is important for a pedagogical approach to find ways to challenge a child's current understanding so that they might develop a deeper and broader appreciation of what is to be learned. One of the best ways to

accomplish this is to provide situations where children are able to *use* their new knowledge across a broad range of contexts and situations.

Consistent with our active and constructivist approach towards learning, *Sesame Street* provides children with a number of avenues to learn basic concepts essential for school readiness. Through the use of songs, television and video, storybooks, play dolls, coloring books, and other materials, *Sesame Street* provides children with a smorgasbord of resources from which to learn. The multiple contexts and settings in which content is available for children to explore new ideas enables them to actively construct an integrated understanding of the material. Further, *Sesame Street* materials are fun and engaging which means that children are motivated to learn about the content while also developing their social and emotional competencies. Many of the *Sesame Street* activities are social in nature which provides opportunities for children to engage in meaningful social interactions. In addition, the world of *Sesame Street* and its lovable characters are a part of our commonly shared culture. This commonality provides opportunities for children and adults to participate in social realities that extend beyond any particular interaction. In short, *Sesame Street* provides children with both the opportunity and motivation to learn new content while also developing their ability as social participants.

Role of Emotions in Learning

An important factor that needs to be addressed in relation to intrinsic motivation is the role of emotions in children's learning (Oades-Sese, Matthews, & Lewis, 2014). Emotions are fundamentally important in cognitive processes that contribute to how we learn such as perception, attention, memory, decision-making, and problem-solving skills (Clore & Huntsinger, 2007; Pekrun, 2011). Positive emotions such as enjoyment of learning and pride have been linked to intrinsic motivation and interest in students across all ages, while negative emotions such as anxiety, shame, and boredom can hamper students' motivation to learn and affect their performance (Pekrun, 2011). While children's experiences in school have an effect on their emotions and performance, experiences at home with parents are also important. Parents, after all, are not only the initial determiners of children's achievement behavior (Center on Social Emotional Intervention for Young Children & Eccles, 1997), but they are also important in terms of children's emotional life which affect their academic performance. Parental behaviors, specifically verbal comments about children's behaviors, are likely to have a long-term impact on how children orient to learning tasks and respond to success or failure (Alessandri & Lewis, 1996; Lewis, 1992). A positive sense of self develops when parent–child interactions are positive and reaffirming (Kaufman, 1992). Specifically, verbal comments that refer to acknowledgement of effort, strategy, and persistence may allow for a fuller recognition of achievement, which leads towards a mastery orientation. This is in contrast to verbal comments that focus on the global self such as "You are smart!" This is important in terms of when failures and successes occur in daily life. When failure is due to lack of effort or poor strategy, children are able to recover from failure by

putting more effort or applying a better strategy (Oades-Sese et al., 2014). This is in contrast to children who blame themselves (I am dumb) for the failure. In this instance, children feel helpless because of their belief that they inherently lack the cognitive capacity to succeed. Furthermore, this can be applied to verbal comments provided by teachers in schools. Therefore, interventions that focus on building positive and nurturing parent–child or teacher–child relationships and communications, fostering positive emotions, and providing problem-solving strategies (i.e., ask for help, try again, study more) that children can use when faced with daily or life challenges are essential tools in building resilience and academic success.

Sesame Street's Little Children, Big Challenges Initiative

One of theinitiatives that the Educational Outreach department at Sesame Workshop embarked upon was to help build strong and healthy families. The resilience initiative provides families and their young children (ages 5–8) with the tools and resources necessary to overcome everyday challenges, transitions, and stressful life events. These tools and resources maximize the use of multimedia and technology and showcase the lovable Muppets of *Sesame Street* in various scenarios and specific experiences relevant to military and civilian families. These resources include print and online materials (e.g., parent guides, educator's guide, storybooks) for primary caregivers and child care providers of young children with information and activities, digital media (apps), and a *Sesame Street* DVD for caregivers and children to view together. The content of the materials, developed with the help of an advisory panel and focus groups, targets the fundamental skills necessary to overcome challenges faced at home, school, and in the community. The materials focus on the core competencies of expressing and managing feelings, coping with frustration, building a self-concept, developing problem-solving skills, and fostering perseverance (Brooks & Goldstein, 2001; Eiesnberg et al., 1997; Greenberg, 2006; Masten, 1994).

The goals of Little Children, Big Challenges are to:

- Foster children's core competencies and model effective ways for young children to confront both difficult everyday situations and challenging circumstances by drawing on these skills (e.g., videos of the *Sesame Street* characters modeling the appropriate problem-solving steps of "breath, think, do").
- Help parents, caregivers, educators, and other professionals by providing specific activities and ways on how to communicate with their young child and thereby foster resilience skills that will equip children to effectively express emotions, develop empathy for others, confront setbacks, solve problems, have a positive sense of self, and persevere.
- Provide support and resources to help children and families cope with the uniquely challenging situations of bullying, divorce, relocation, and incarceration of a parent as well as to help educators build resilience skills in children to deal effectively with challenging situations that occur in school. For example, showing children how drawing or writing letters can maintain contact with an incarcerated parent.

By providing the community (i.e., parents, teachers, caregivers, educators, professionals) with these necessary tools and resources, Sesame Workshop is able to contribute to and foster the successful development of children.

Brief History of *Sesame Street*

Conceived in the 1960s during Lyndon Johnson's "War on Poverty," *Sesame Street* was designed as an experiment to test whether or not an entertaining television show could be used as a tool to educate young children. The specific aim of the show was to help children from low-income families prepare for school. Today, *Sesame Street*, with its beloved Muppet characters, has aired in over 140 countries, and has expanded beyond television to include books, radio, interactive and online media, and community outreach initiatives. As some have noted, *Sesame Street* has evolved into "the longest street in the world."

As it turns out, the founders were right—the experiment worked. Evidence from several early evaluations indicated that *Sesame Street* viewers outperformed their non-viewing peers on a range of cognitive, academic, and socio-emotional measures (Wright et al., 2001). In particular, longitudinal studies have also shown that children who were frequent *Sesame Street* viewers at age two scored higher on standardized tests of school readiness in kindergarten than less-frequent or non-viewers and that frequent *Sesame Street* viewing in preschool is associated with higher high-school grade point averages even when controlling for several demographic factors (Anderson, Huston, Schmitt, Linebarger, & Wright, 2001). One recent study found that children in preschool classrooms, which participated in a media-rich curriculum incorporating public television video and games (from *Sesame Street*, Super Why and Between the Lions), developed the early literacy skills critical for success in school. These foundational skills—being able to name letters, knowing the sounds associated with those letters, and understanding basic concepts about stories and print—all increased among the 4- and 5-year-olds in the study (Penuel et al., 2012). Other studies have found that children who viewed *Sesame Street* segments also had the highest level of prosocial behaviors during planned and structured activities and were lowest in antisocial behaviors during free play (Zielinska & Chambers, 1995).

Community Outreach

The Educational Outreach department within Sesame Workshop has been especially instrumental in the development and distribution of content, particularly to low-income families. The Educational Outreach department is able to specifically meet the needs of families with young children with the greatest need by getting resources into the hands of these families, working with these families and advisors (i.e., policy makers, educators, developmental psychologists) during the development of

resources to determine issues of particular urgency and to ensure resources are appealing, useful, and relevant. Effectively and directly reaching families and children in need is accomplished in part by involving key national organizations as the resources are being developed, thereby ensuring that the resources can be easily integrated into these organizations' delivery systems (Sesame Workshop, 1983).

During Sesame Workshop's early years, the primary goal of Educational Outreach (then called "Community Education Services") was to raise awareness among low-income and underserved families in inner-city neighborhoods and rural America about the educational value of *Sesame Street*, and instruct these families on how they could make the most out of the *Sesame Street* viewing experience. This task was accomplished at a community-based grassroots level, through house-to-house canvassing, trainings at Head Start programs and other publicly funded child care programs, and workshops at parent–teacher meetings, community events, church groups, and other neighborhood programs.

Once *Sesame Street* became better known as a positive addition to children's daily television fare, Educational Outreach shifted its focus from solely building viewership to utilizing the resources at Sesame Workshop to engage in topic areas and initiatives addressing the needs of families and children experiencing the effects of ongoing poverty. These initiatives also reached out to child care providers to use these outreach materials as a springboard for hands-on and other activities that addressed children's cognitive, health, and/or social and emotional development, as well as family engagement in their children's overall well-being. Additionally, training programs served to introduce providers to the outreach resources, and furnished support for integrating these resources as a vital tool for their programs (Yotive & Fisch, 2001).

Outreach efforts to reach children in need, wherever they may reside, led to initiatives in some unexpected settings. For example, outreach initiatives were created for migrant camps, which allowed providers to incorporate *Sesame Street* materials into their curricula while the children's parents worked as migrant laborers in nearby fields. *Sesame Street* centers were established in federal prisons to provide facilities in which young children could engage in songs, games, and other educational activities while their parents visited relatives who were incarcerated (Yotive & Fisch, 2001).

Educational Outreach continues to create needs-driven public service initiatives across multiple media platforms, leveraging relationships and distributing materials through a network of strategic partnerships in the United States and around the world. As before, outreach initiatives are driven by local needs and urgencies. Most outreach programs and the materials produced for them stem from *Sesame Street* or its international variations, making creative use of the *Sesame Street* characters, formats, and educational curricula. Most domestic projects are produced in both English and Spanish (and, in some additional languages, such as Mandarin and Arabic), in order to obtain maximum reach. Materials developed for the various initiatives are distributed free of charge through a wide domestic and international network of organizations that reach into the community via schools, child care programs, libraries, public television stations, health care programs, literacy programs, ethnic advocacy organizations, and other groups that serve children and families.

The success of the Workshop's content and initiatives is often credited to the synergy of a variety of expertise and an iterative feedback process. To set goals, establish curricula, and monitor the impact of their projects, Sesame Workshop's founders created (the "Sesame Workshop Model") involving a dynamic collaboration among educators, researchers, and media producers (Mielke, 1990). A project typically begins with a series of advisory panels, which are gathered to develop the educational goals for a particular project, followed by a period of time in which educators write curricula based on these goals. These curricula are then used by writers and producers as a guide when creating the program or content. An integral part of this model is the formative research process. Formative research usually begins by conducting needs assessments examining current research being conducted with children and families around the curriculum topic being explored, and conducting research with children and families to gauge the extent of their knowledge of the curriculum topic. This phase aids writers and producers on how to approach the educational goals, determining which goals are of greatest importance, and how the educational content should be best presented. Once drafts of print or video materials are available, they are presented to children (and/or their caregivers if they are also the intended audience) to gauge comprehension and appeal. The feedback from children and caregivers is then used to inform any changes before the final production of content. Finally, an evaluation may be conducted to assess whether the content has the desired impact.

Role of Muppets

Role of Puppets/Muppets in Intervention Design

Puppets have been a part of human history since ancient times as means of self-expression (Esquivel, Oades-Sese, & Jarvis, 2010). In Ancient Egypt, puppets were jointed and made from terracotta, while shadow puppets in China were made of rod and animal skin. In Turkey, they were three-dimensional and articulated to reflect the natural movements of people. Puppets (e.g., sock puppets, marionettes, hand puppets) have evolved and made their way into public television with Howdy Doody; Kukla, Fran, and Ollie; Sherlock from the Magic Garden; Lamb Chop; Mr. Rogers' King Friday XIII, Lady Elaine Fairchilde, and Henrietta Pussycat; Jim Henson's Kermit and Miss Piggy to the lovable *Sesame Street* characters of Elmo, Grover, Oscar the Grouch, Rosita, Count von Count, and many more.

Although the research literature is sparse, the use of puppets has been widely documented to be effective in a variety of clinical applications and interventions. For example, puppets were found to help hospitalized children cope with illness and separation from parents (Woltmann, 1940) and to help abused or traumatized children feel more comfortable to play out their experiences than interacting directly with a therapist. This is similar to the spontaneous way children use family dolls or action figures to play out their thoughts, feelings, anxiety, and fears (Carter, 1987; Seinfeld, 1989). Children identify with puppets and project their feelings onto them. This allows children to depersonalize their feelings and share them indirectly with a therapist.

Puppets that reflect or represent cultural values and traditions are shown to be more effective for children, especially for children from culturally and linguistically diverse backgrounds. For example, because Native Americans value storytelling and humor, clown-like figures are often found in their folklore. Fables and fairytales across cultures often feature animal characters that teach a lesson or feature positive or negative traits. Therefore, animal puppets are often used during storytelling with children (Herring & Meggert, 1994). In the educational and clinical setting, multicultural puppets can be very effective in teaching children about feelings, emotional literacy, conflict resolution, and prosocial skills (Esquivel et al., 2010).

In the field, the first author has found puppets "of color" useful in training teachers how to teach preschool children conflict resolution or problem-solving skills in their classrooms; both teachers and children are often more engaged and motivated to learn. Multicultural puppets are also used to teach children about acceptance and tolerance for differences. The "Kids on the Block" puppet program (Aiello, 1988) is an example that teaches nondisabled children to understand and appreciate those who with physical and/or mental challenges. Puppets can also be used to represent a variety of health conditions, disabilities, or situations such as cerebral palsy, mental retardation, learning problems, parental incarceration, and divorce.

Many evidence-based interventions in early childhood incorporate puppets to build social skills, emotional understanding, interpersonal problem-solving skills, and literacy (Dunlap & Powell, 2009). Examples of these interventions include Al's Pals (Wingspan, 1999), Incredible Years: Dina Dinosaur Classroom Curriculum (Webster-Stratton, 2002), Preschool PATHS (Domitrovich, Greenberg, Kusche, & Cortes, 2004), Second Step (Committee for Children, 1991), and Preschool I Can Problem Solve (Shure, 2000). Use of puppets in an intervention ensures sustained interest, active engagement, and provides a medium to externalize and objectify feelings and difficult life situations.

Sesame Street Muppets

Sesame Street's Muppets have been delighting children for decades. Muppets have been instrumental in helping Sesame Workshop engage and teach children in different curriculum areas and countries. The Muppets make it possible to introduce sensitive subjects, the one that may be deemed too sensitive to attempt with young children in a video or television show. Their versatility and diversity enable these characters to broach difficult or complex topics, such as divorce or death of a loved one, in age appropriate ways that help preschoolers to cope.

Initially conceived as a way to help maintain children's attention to the curriculum goals that *Sesame Street* was trying to teach, the Muppets were an ideal tool for engaging children and conveying information. Muppets could consistently remain in character across episodes and also were able to portray more exaggerated and clearer roles than human characters (Lesser, 1974). Their physical design, of softer materials such as foam, enables these puppets to be more expressive than traditional puppets. Their eyes and face are constructed in a unique fashion, to form a "magic

triangle," whereby pupil's of the Muppet's eyes focus slightly inwards, creating a triangle with the Muppet's nose. This positioning of the pupils, combined with the curvature of the face makes the Muppet appear to be focusing directly on the camera and the children watching (Gikow, 2009). These unique qualities, as well as their familiarity allow the *Sesame Street* Muppets to speak to children in ways that otherwise might not be possible. Through their endearing personalities and their particular appearance, they have been able to teach children all over the world about tolerance, literacy, health and hygiene, and self-esteem.

Multimedia and Technology

Role of Multimedia Technology

In general, multimedia and technology approaches to education are well suited to a constructivist perspective on learning (Mayer, Moreno, Boire, & Vagge, 1999). Multimedia and technology approaches do not just repeat the same information in different formats, like Morse code and the alphabet, but rather, the multiple modes of presentation provide unique information that can converge to enable a more comprehensive and a more thoroughly integrated understanding of the content. In the past, technology-based interventions tended to mean using computers—both for the presentation of material and for student-guided learning (Ringstaff & Kelley, 2002). The widespread availability of the Internet starting in the mid 1990s transformed the educational use of computers into a resource that is much more dynamic, interactive, and multipurpose than "stand-alone drill-and-practice" systems (Waxman, Lin, & Michko, 2003). The current ensemble of multimedia devices available for use in the classroom has further expanded the scope and depth of technology-based interventions.

Multimedia environments can be broadly defined as communications involving multiple modes of presentation. In the simplest case, theses modes of presentation can include different modalities as with the combination of visual and verbal formats in a narrated film. More sophisticated multimedia environments, however, are also going to include some degree of interactivity with both the materials and with other people. For example, the turn-taking involved with learning a new song or game or reading a new storybook. From our perspective, what is most important about a multimedia environment is that there are a variety of ways in which different aspects of the content can be presented and the degree to which children are encouraged to actively engage with such content either directly or indirectly with other people.

Sesame Workshop capitalizes on multimedia and technology through television, DVDs, mobile apps, and Internet resources, but it also utilizes storybooks and activities that involve interactions with other people. Sesame Workshop's use of a multimedia approach is well suited to capitalize on both the cognitive and motivational aspects of learning. Cognitively, using a multimedia approach means that we are able to accommodate many of the individual differences in the learning styles of children, while also reinforcing different aspects of the same basic content across multiple contexts. Motivationally, the inherent appeal of the Muppet characters and

the interest children have in using various forms of technology helps them attend to, and engage with, the content of the material being presented. Further, past research has found that less formal presentation styles are better able to promote learning in multimedia environments (Moreno & Mayer, 2007)—a feature that is exemplified by the friendly and conversational presentation style of the Muppet characters.

Effectiveness of Technology-Based Interventions

Evaluating the effectiveness of technology-based interventions in the classroom is difficult given the large variability in both the purposes of the interventions and the multiple varieties of implementations (Cook, Garside, Levinson, Dupras, & Montori, 2010). While not all technology-based interventions are effective at showing gains relative to control groups, there does not seem to be any negative effects from such research. This is important because optimizing interventions requires determining what *does not* work as much as it involves figuring out what *does* work. Further, there does not seem to be any "silver bullet" intervention principles or techniques that will apply across all contexts and for all purposes. Thus, research that has ruled out intervention principles and techniques in one area may be safely studied in another area without negatively impacting children's education.

The effect of multimedia-enhanced educational instruction on the vocabulary growth of young children has been mixed for both native English speakers and for English Language Learners (Silverman & Hines, 2009). What does seem to be clear is that viewing education television in the classroom without additional elaboration or reinforcement does not provide gains in vocabulary growth for either native English speakers or for Spanish–English bilinguals (Linebarger, Kosanic, Greenwood, & Doku, 2004; Uchikoshi, 2006). Therefore, the use of multimedia in the classroom in conjunction with teacher interaction, guidance, and feedback are essential in order to realize the promise of multimedia learning environments.

We are currently assessing whether the Little Children, Big Challenges DVDs, mobile apps, and Internet resources are being utilized by parents and teachers and whether these multimedia resources are effective in building close parent–child relationships, emotional knowledge and understanding, emotional literacy, and problem-solving skills. We are also evaluating whether these resources help children and their families better prepare for future challenges.

Resilience-Based Intervention

Theory of Change

The Theory of Change plays an important role in intervention development and provides a visual representation of the pathway to change. It provides a roadmap to achieve the goal(s) of the intervention and charts out destinations of progress.

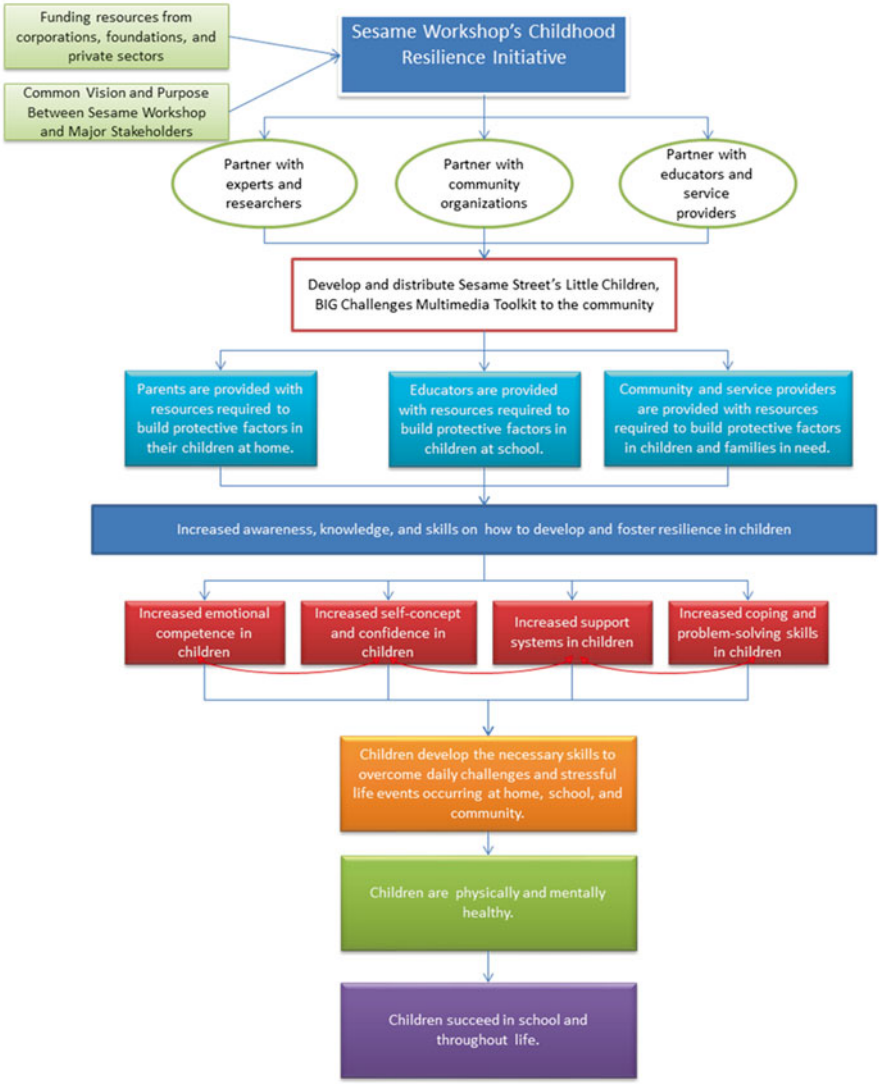
Funding resources from corporations, foundations, and private sectors
Common Vision and Purpose Between Sesame Workshop and Major Stakeholders
Sesame Workshop's Childhood Resilience Initiative
Partner with experts and researchers
Partner with community organizations
Partner with educators and service providers
Develop and distribute Sesame Street's Little Children, BIG Challenges Multimedia Toolkit to the community
Parents are provided with resources required to build protective factors in their children at home.
Educators are provided with resources required to build protective factors in children at school.
Community and service providers are provided with resources required to build protective factors in children and families in need.
Increased awareness, knowledge, and skills on how to develop and foster resilience in children
Increased emotional competence in children
Increased self-concept and confidence in children
Increased support systems in children
Increased coping and problem-solving skills in children
Children develop the necessary skills to overcome daily challenges and stressful life events occurring at home, school, and community.
Children are physically and mentally healthy.
Children succeed in school and throughout life.

Fig. 9.1 Theory of change for the Sesame Workshop's childhood resilience initiative

The Theory of Change visual diagram (see Fig. 9.1) depicts the Childhood Resilience Initiative strategies and intended results. Partnerships with researchers, experts, community organizations, educators, and service providers are key ingredients to developing and disseminating the intervention. The short-term goals of the initiative are to (a) empower adults who are significant in children's lives (i.e., parents, caregivers, educators) by increasing their awareness and knowledge about the protective factors that underlie resilience, (b) provide these adults and the community with

free and accessible resources to develop the skills for "how" to promote resilience in multiple contexts, and, (c) improve the attitudes, behaviors, and skills that are necessary for children to overcome challenging situations. Successful achievement of these short-term goals should lead to the long-term goal of building strong, healthy, and successful children.

The assumptions that underlie the initiative's Theory of Change influence the road-map's design. These assumptions are as follows:

- Research is a valuable source of information that contributes to the design and development of an intervention.
- Expertise and leaders, at multiple levels in the community, help define and identify important protective factors that underlie resilience in young children.
- Multimedia and technology are able to engage learners with different learning styles, abilities, and cultural backgrounds.
- By providing the necessary tools to primary caregivers, they are more likely to be successful in building healthy and resilient children.
- Well-designed program evaluation increases learning and development for future projects and influences the effectiveness of the funders' investments.

Little Children, Big Challenges Multimedia Toolkits

There are three multimedia toolkits that were developed by Sesame Workshop as part of the *Little Children, Big Challenges* initiative. While two of them are focused on the specific life challenges of divorce (Little Children, Big Challenges: Divorce) and incarceration (Little Children, Big Challenges: Incarceration), the third multimedia toolkit (Little Children, Big Challenges: General Resilience) is focused on building general resilience for dealing with life's more day-to-day challenges at home and school. The divorce and incarceration toolkits were designed to be used by parents at home and the general resilience toolkit was designed to be used by preschool teachers in the classroom and by parents at home. Based on the recommendations of the initiative's advisory board, four protective factors were emphasized in the toolkits: circle of care (attachment), sense of self, emotional understanding and knowledge, and problem-solving skills. These protective factors underlie social–emotional and academic resilience in young children.

The core of the two parent multimedia toolkits is a *Sesame Street* DVD, parent guidebook, and children's storybook. The *Sesame Street* DVD features a Muppet story and live-action films with real families sharing their experiences around some of life's challenging situations (e.g., divorce, incarceration of a parent). The Muppet story uses the familiar characters from *Sesame Street* to introduce young children to the type of challenging situation that is the focus of that particular toolkit. The primary purpose of the Muppet story is to help children understand what it means for their parents to be in the situation that they are in and that it is alright to have this difference from other families. In this way, the classic Muppet methodology is used to both explain the meaning of the challenging situation (i.e., divorce, incarceration)

and to render any stigma about that type of situation inert. The parent guidebook has a number of tips and activities about how parents can engage with their children on the difficult topic that they are dealing with. For example, the parent guide addresses how to explain "divorce" or "incarceration" in developmentally appropriate ways. The storybooks include characters who are going through the same challenging situation as the child and provide parents with a natural setting to talk about their own situation as they read and reread the storybook with their children. For example, the storybook of the divorce/separation toolkit, *Two-Hug Day*, depicts Niko's experiences of going back and forth between the homes of his divorced parents.

The general resilience classroom toolkit is for use by preschool teachers in the classroom and includes a *Sesame Street* DVD featuring Muppet stories about day-to-day challenges that young children might face at school (e.g., saying goodbye at morning drop off, making new friends). The Muppet stories try to help children understand that these situations are a regular part of life and that they can learn strategies to help them gain some agency in the situation and resolve their discomfort. The general resilience toolkit also includes an education curriculum with 12 weeks of lessons and activities. The focus of the curriculum is on teaching children about different emotions beyond the basic ones (i.e., happy, sad, mad) and how to correctly identify and resolve interpersonal conflict situations. Children are taught to expand their emotion vocabulary to include words such as thrilled, ecstatic, disappointed, frustrated, furious, and miserable; and to use the steps of *Breathe, Think, and Do* to solve problems. There is also a parent version of this toolkit.

The different toolkits also make use of other multimedia materials that can be accessed through the Internet and specially designed mobile apps. Additional tips for parents and activities for children can be downloaded from the Internet. Webinars and online discussion sessions geared towards families and service providers are also available. Finally, Facebook pages have been created to help parents build a community of people who are all dealing with some of the same types of challenging issues. In sum, Little Children, Big Challenges includes multiple resources for helping children build resilience. The combination of both parent and teacher toolkits capitalizes on efforts aimed at a more holistic and comprehensive approach towards intervention research. These toolkits are made available free to parents, educators, and the community at www.sesamestreet.org. These toolkits can be used as a supplement to any social–emotional curriculum at school or used individually by parents with their children at home.

The Role of Research, Accountability, and Impact Evaluation

Research and outcome evaluations are important in determining the effect of an intervention. Findings from research can help make decisions about the future of interventions as well as serve as an accountability measure to determine if the funders' investments have been translated to effective social and educational interventions (Owen, 2007). Currently, we are conducting three research studies to determine the effectiveness of the *Little Children, Big Challenges* multimedia

Fig. 9.2 *Sesame Street's* Little Children, Big Challenges: Divorce Toolkit

toolkits in building resilience in young children and their families. These studies include two parent intervention studies (i.e., *Sesame Street* Resilience Project: Divorce and Separation and *Sesame Street* Resilience Project: Families Dealing with an Incarcerated Parent) and a school-based intervention study (*Sesame Street* Resilience Project: General Resilience Classroom Study). The following paragraphs provide an overview of these studies.

Building Resilience in Families Dealing with Divorce or Separation

The purpose of the *Sesame Street* Resilience Project: Divorce and Separation is to determine the effectiveness of *Sesame Street*'s multimedia toolkit, *Little Children, Big Challenges: Divorce* (see Fig. 9.2). The toolkit is designed to proactively help children build resilience factors during the challenging situation of divorce/separation. The aims of the toolkit are to: (a) provide children (ages 2–8) with the tools and language necessary to help them cope with and understand divorce at an age-appropriate level, (b) aid families in communicating and expressing feelings concerning the divorce, (c) teach children a feelings vocabulary, (d) provide parent tips such as managing strong emotions, dealing with blended families, and reducing stress, and (e) reassure children that they will be cared for, and that—together with their family—they can learn ways to adjust to their new life.

The *Little Children, Big Challenges: Divorce* toolkit fosters three key protective factors that include attachment relationships (circle of care), emotional

understanding, and sense of self. These factors have been identified in the research literature and highlighted by Sesame Workshop because they summarize the main skills that are crucial in young children's development of resilience. These resilience factors are defined as follows:

- *Circle of care* is a network of secure attachment relationships that are crucial to children's emotional growth which include parents, teachers, relatives, and other trusted adults.
- *Emotional understanding* involves young children's ability to verbally label and express emotions via a feelings vocabulary, and to learn how to regulate and cope with emotions. In turn, these skills contribute to the development of empathy.
- *Sense of self* concerns young children's self-awareness of what they can and cannot do (abilities), their likes and dislikes, and personal characteristics. Children are able to develop self-confidence as they learn to value their unique qualities, to feel pride in their achievements, and to take on new challenges.

Participants in this 6-week study include 150 divorced or separated (civilian and military) parents and their children from diverse socioeconomic and ethnic backgrounds from New Jersey. Participants were recruited from over 70 preschools and Head Start centers and community organizations and randomly assigned to either the intervention or control group. The pre- and posttest study assesses parent satisfaction with and attitudes towards the toolkit, as well as their perceptions of the toolkit's impact on their child's developmental outcomes. We expect to find that the toolkit was effective in fostering parent–child relationships, communications about feelings surrounding the divorce or separation, and improved child behaviors.

Building Resilience in Families with an Incarcerated Parent

The purpose of the *Sesame Street* Resilience Project: Families Dealing with an Incarcerated Parent is to determine the effectiveness of *Sesame Street*'s multimedia toolkit (English and Spanish versions)—*Little Children, Big Challenges: Incarceration* (see Fig. 9.3). The toolkit is designed to proactively help caregivers and children build resilience during the incarceration of a parent. The aims of the toolkit are to: (a) provide children (ages 6–8) with the tools and language necessary to help them cope with and understand incarceration at an age-appropriate level, (b) aid families in communicating and expressing feelings concerning the incarceration, (c) teach children a feelings vocabulary, (d) provide a parent or caregiver tips that are helpful regarding the incarceration, and (e) reassure children that they will be cared for, and that—together with their family—they can learn ways to adjust to their new life. Similar to the divorce and separation toolkit, the toolkit fosters three key protective factors that include attachment relationships (circle of care), emotional understanding, and sense of self.

Participants in this 6-week study include 100 parents or caregivers with young children who have an incarcerated parent from diverse socioeconomic and ethnic

Fig. 9.3 Sesame Street's Little Children, Big Challenges: Incarceration Toolkit

backgrounds from New Jersey. Participants were recruited from over 70 preschools and Head Start centers, community organizations, and state prisons. Participants were randomly assigned to either the intervention or control group. The pre- and posttest study assesses parent satisfaction with and attitudes towards the toolkit, as well as their perceptions of the impact of the toolkit on their child's developmental outcomes. We expect to find that the toolkit was effective in educating parents and caregivers on how to cope with this stressful life situation, building parent- or caregiver–child relationships, communicating about feelings surrounding the incarceration of a parent, and improving child behaviors.

Building Resilience in Schools

The purpose of the *Sesame Street* Resilience Project: General Resilience Classroom Study is to determine the effectiveness of the multimedia toolkit, *Little Children, Big Challenges: General Resilience.* The aims of the toolkit are to: (a) provide teachers with the resources that they need to help children cope with and understand challenging situations at an age-appropriate level, (b) help children to communicate and express their feelings around challenging issues, (c) help children learn a feelings vocabulary, (d) foster the development of children's emotional competence in terms of their emotional understanding, emotional management and regulation, and interpersonal problem-solving skills. The *Little Children, Big Challenges: General Resilience* toolkit fosters four key protective factors that include circle of care, emotional understanding, sense of self, and problem-solving skills.

Participants in this study include 700 children (ages 3–5), 700 parents, and 140 teachers from Head Start centers, state preschools, and military child development centers in San Diego, California. Participants are from diverse socioeconomic and ethnic backgrounds. Approximately, 50 schools were randomly assigned to either the intervention or control group. Teachers will be provided with a one-day training workshop to demonstrate how to implement the toolkit in the classroom as well as how to integrate the 10–15 min *Sesame Street* activities into their curriculum. The toolkit will be implemented daily for 12 weeks in 140 classrooms and two classroom fidelity checks will be conducted by trained research assistants. Pre- and post-intervention data will be collected through direct assessment of randomly selected children in each classroom as well as parent data to determine if skills acquired in the classroom generalize to the home. Teachers' perceptions of children's social–emotional development as well as their attitudes, behaviors, and satisfaction regarding the toolkit will be evaluated. We expect to find that the *Little Children, Big Challenges: General Resilience* toolkit was effective in building children's emotional knowledge and understanding, emotional literacy, problem-solving skills, and social competence.

Conclusion

In closing, the overarching message that children and families learn from *Little Children, Big Challenges* is effectively communicated by Big Bird, Cookie Monster, and Elmo through a song created for the initiative called the "What We Are Anthem." The Youtube link is http://www.youtube.com/watch?v=FDWFT3VzOhw. Here is an excerpt of the anthem:

> And nothing's gonna bring us down.
> Never giving up.
> Gotta go.
> Because we know we'll keep getting stronger.
> And what we are is helpful!
> And what we are is brave!
> What we are is thoughtful!
> What we are is special!
> What we are is confident!
> There is nothing we cannot achieve because this is what we believe in…Because we know we'll keep getting stronger.

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Chapter 10
Enhancing Classroom Resilience with ClassMaps Consultation

Samuel Y. Song, Jonathon Sikorski, Beth Doll, and Meredith Sikorski

Promoting positive school outcomes requires thoughtful consideration of the research in resilience. Resilience is a foundation to applied practice in schools showing that children can succeed despite growing up in very adverse living conditions (Doll & Cummings, 2007; Werner, 1992). The actual application of resilience research to school practice, however, has remained elusive (Prince-Embury & Saklofske, 2013). A pioneering effort to translate resilience research into applied practice in schools effectively and efficiently is the *ClassMaps Consultation* (CMC) framework (Song, Doll, & Marth, 2013). The purpose of this chapter is to illustrate how the CMC is implemented in schools by describing its theoretical model of resilience together with the consultation model, and then presenting a case study example. The areas of implementation and professional development are also discussed.

ClassMaps Consultation Model

The CMC model is based on an ecological framework of resilience and focuses on empirically-supported classroom resilience characteristics. CMC also provides a process for implementing and evaluating resilience-enhancing strategies in classrooms. These areas of CMC are discussed below.

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Model of Resilience

CMC was designed to be used in schools by practitioners who are employed by schools and are considered "in house" professionals (e.g., school psychologists, school social workers, and teachers). As such, rather than conceptualizing resilience as "within the person," CMC views resilience as "within the context" because that conceptualization is more consistent with the practical realities of school practice (Song et al., 2013).

An ecological theoretical framework has been helpful in providing a broader and deeper understanding of resilience. Ecological theory underscores that resilience emerges from complex interactions between social, physical, institutional, and community environments and the individual characteristics of the students (Bronfenbrenner, 1979; Doll & Brehm, 2010; Pianta & Walsh, 1996). Resilience in classrooms is viewed as various ecological or setting factors interacting together to promote strengths (or protective factors) in classrooms and resulting in student outcomes over time (Doll & Brehm, 2010). In practice, identifying resilience primarily as a set of ecological factors (or setting factors of the context) is more common and useful in schools (Song et al., 2013). Therefore, CMC has focused on ecological factors that promote resilience in classrooms and operationalized these factors based on developmental and educational research.

Over 50 years of developmental resilience research (Doll, Brehm, & Zucker, in press) was used to operationalize resilience as two sets of ecological factors—relatedness and autonomy—that comprise the ecology of school classrooms, and can be assessed and enhanced through intervention strategies. Relatedness and autonomy consist of three characteristics each totaling the six ecological factors of CMC: (a) three specific aspects of relatedness (students' relationships with their teachers, students' relationships with their classmates, and families' involvement in students' schooling); and (b) three specific aspects supporting student autonomy (students' efficacy for their own academic success, students' self-determination for goals and decisions related to their schooling, and their self-control of their own goal-directed behaviors).

In order to be effective in navigating educational environments, students must be able to demonstrate educational competencies and adaptive behaviors. The CMC model focuses on increasing the positive skills of students through enhancing classroom resilience rather than addressing inappropriate behavior. This positive focus has been proven effective in promoting positive school and classroom environments (Caldarella, Shatzer, Gray, Young, & Young, 2011; Masten & Coatsworth, 1998; Rusby, Crowley, Sprague, & Biglan, 2011). Positive school and classroom environments increase the academic engagement and outcomes of students (Christenson et al., 2008; Jacob, 2008).

ClassMaps Survey

The ClassMaps Survey (CMS) is used to measure student perceptions of their classroom environment. The CMS is a reliable and accurate measure of school climate and has been based on 20 years of school climate research (Doll, Brehm et al., in press). The CMS is a 55-item measure that asks students to rate perceptions of classroom factors on 4-point Likert scale (*never*, *sometimes*, *often*, *and almost always*). The scale has been tested and shown reliable for participants in elementary, middle, high school, and college students with Cronbach alpha scores ranging $\alpha = .70$ to .84 (Doll, Brehm et al., in press). For more information on technical properties of the CMS, see Doll, Spies, LeClair, Kurien, and Foley (2010).

The CMS's eight subscales can be divided into three critical aspects of school engagement: developing strong relationships; building self-regulatory behaviors, and student perceptions of peer aggression. The first critical area, quality of relationships in the classroom is assessed by four CMS subscales. The *My Teacher* subscale measures the quality and degree of teacher–student relationship (MT, 7 items); *My Classmates* subscale measures student perceptions of peer relationships and connectedness (MC, 6 items); *Talking with Parents* measures student perceptions of home–school relationships and home–school collaboration (TWP, 7 items); and the *Kids in this Class* measures students perceptions of peer conflict within the classroom (KITC, five items). Relational aspects of classroom environment are particularly important when working with students from disadvantaged backgrounds (Doll, Brehm et al., in press). Specifically, fostering strong teacher–student relationships can make the difference between at-risk students succeeding or failing (Masten & Coatsworth, 1998). The CMS has been shown to be an effective tool in measuring the relational aspects of classrooms and identifying positive protective supports for students.

Three other CMS subscales tap the second critical area, student self-regulatory behaviors. The *Believing in Me* subscale is a measure of student self-efficacy and confidence in their academic abilities (BIM, 8 items); *Taking Charge* subscale measures student ratings of self-determination and persistence in academics (TC, 8 items); and *Following Classroom Rules* measures student's behavioral self-control and regulation (FCR, 5 items).

An eighth subscale, *I Worry That*, assesses the third critical area, student perceptions and fears of peer aggression (IWT, 9 items). These subscales are important in measuring student perceptions of their ability to succeed and thrive within the classroom. Students are most successful when they can engage in classroom curriculum, set goals for their learning, and feel safe within the classroom (Doll et al., 2011).

An advantage of using the CMS is that it addresses a serious limitation of traditional individually focused consultation models that may mask students who are passively disengaged from the classroom (Doll, Brehm, et al., in press). The CMC model relies on collecting aggregated data from students within a classroom who remain anonymous at the individual level. This allows teachers and data experts to collect broad information of student perceptions of climate, saving time, and school

resources (Doll et al., 2011). Aggregated student data of CMS subscale scores are useful in measuring the overall effectiveness of classroom interventions. Collected data are analyzed through a framework that targets building classroom level supports and micro-changes, and uses continuous assessment to guide intervention implementation. The eight CMS subscales can be examined individually as pre-/post-effect measures of classroom-based interventions.

Consultation and Intervention Process

The CMC model uses a four-step problem-solving process that incorporates the six ecological resilience factors described earlier. This four-step problem-solving model incorporates components of the CMS to increase the overall resilience of classrooms. The four steps of CMC include: (1) Conducting a classroom assessment, (2), Making sense of classroom data, (3) Planning and implementing classroom changes, and (4) Evaluating the classroom changes and refining them based on the data.

Conducting a needs assessment is the first step of the CMC process. In the CMC model, the CMS is used to identify or highlight strengths and problems in a classroom. Research in conducting needs assessment has shown that teachers are often undertrained in data collection and management strategies (Doll, Brehm, et al., in press). However, in CMC, the CMS is a useful tool in measuring the six critical components of resilient classrooms. The CMS has been shown to be effective for measuring the resiliency of students with acceptable internal consistency and factor structure (see Doll, Jones, et al., 2011; Doll, Spies, Champion et al., 2010; Doll, Spies, LeClair et al., 2010). The classroom assessment process is cyclical and encourages teachers and students to reevaluate data, make goals, and collect additional data.

The second component of the CMC model is making sense of classroom data. Needs assessment data are collated, aggregated, and graphed in order to determine the strengths and weaknesses of the classroom (Doll, Jones, et al., 2011). In some classrooms, a school psychologist or special educator may act as a consultant who assembles the data for teachers. Alternatively, with targeted coaching in data use, teachers can become experts in collating and graphing their own classroom data. Empowering teachers and students to analyze and interpret classroom data increases teacher and student buy-in and reduces resistance to intervention strategies (Council for Exceptional Children, 2008; Lohrmann, Forman, Martin, & Palmieri, 2008).

The third component of CMC is planning and implementing classroom changes. Implementation research has stressed the importance of balancing academic rigor and practical considerations to increase implementation fidelity (Doll, Brehm, et al., in press). Interventions that are implemented need to be within the skill level of the practitioner and address the weaknesses identified from the needs assessment (Doll, Brehm, et al., in press). In collaboration with colleagues or the school psychologist, teachers choose practical interventions for classroom change based on how well they fit classroom culture, values, and scale with an understanding that there are

multiple ways to collect meaningful data (Caldarella et al., 2011; Doll, Brehm, et al., in press; Doll et al., 2011).

Finally, the last component of the CMC model is evaluating and refining the intervention. In this critical component, teachers work with their colleagues to monitor the progress of classroom change in response to the intervention. Key questions that they ask are: Does the data show positive change in the classroom? Is the change large enough to make a meaningful difference for students? And is the change large enough that the classroom will meet the goal that the teacher has set (Fuchs, 2003; Safer & Fleischman, 2005). Intervention and routines are established that have been shown to be effective in achieving goals outlined in the classroom needs assessment. If an intervention is not effective in addressing the classroom problem, or if the effect is too small to be meaningful, teachers and their colleagues discuss the intervention, review the data describing its effect, and make plans to strengthen the intervention or to replace it with an alternative intervention that is more likely to be effective. Reevaluating interventions and making adjustments based off of data is an effective component of data-based decision making and increases the positive outcomes of students (Caldarella et al., 2011).

CMC Case Study

Now that CMC has been described, a case study is presented to help illustrate the intervention model more concretely. The case study highlights how peer resilience was enhanced in this classroom by encouraging students to work together to solve the classroom's problems.

Background Information

The setting was a third-grade Spanish Immersion classroom ($n = 22$) in a public suburban elementary school in a large Midwestern city. In immersion classrooms, the students' home language is English; however, at least 90 % of instruction throughout the school day is in Spanish, including math, science, social studies, and language arts. After winter break, the classroom teacher noticed that students were approaching her multiple times a day to tattle or report peer conflicts. Conflicts appeared to be particularly frequent during unstructured times at school: (a) after arriving and getting off of the bus, (b) after lunch/recess, and (c) after gym class. Students would often approach the teacher to report how they perceived other students were mistreating them during these times. These conflicts and complaints began to spill over into the general education classroom, interrupted instructional time, and increased peer conflict in the classroom.

The teacher felt overwhelmed and annoyed by the deficits in her students' problem solving and social resilience. She was concerned that the students' increasing

dependence on her to resolve and mediate peer conflicts was consuming valuable instructional time, and was detrimental to the classroom's overall climate and community. She was already implementing many aspects of the social curriculum outlined in the *Responsive Classroom* (Brock et al., 2008) intervention including: whole class rule creation to produce student ownership; daily "morning meetings" consisting of a greeting, a sharing activity, a group building activity, and letter with the daily news to aid in decreasing peer conflicts.

Conducting a Classroom Assessment

The teacher administered the CMS in February due to perceived increase in peer conflict after winter break. The teacher planned a classroom meeting after scoring and graphing the CMSs. After analyzing the data, she decided to focus on the My Classmates subscale (effective peer relationships) because it focused on perceptions of peer conflict. She believed that peer conflicts were negatively impacting students' learning opportunities, and she did not see evidence of her students' skills or confidence to resolve conflicts autonomously. Her hope was to empower her students to resolve peer conflicts independently, and, in turn, strengthen the classroom community. The classroom meeting was held shortly after recess, a common time when students reported the day's conflicts to her, to measure their experiences from the day. She used the "Goal-Setting Worksheet" from *Resilient Classrooms* to guide her discussion. Additionally, she decided to create some measures to collect further data about students' abilities to confidently resolve conflicts on their own.

Making Sense of Classroom Data

During the problem-solving meeting, the teacher shared a PowerPoint Presentation of six graphs depicting the class's answers to each of the survey's subscales measuring academic efficacy, behavioral self-control, effective teacher–student relationships, effective peer relationship, and effective home–school relationships. After reviewing the six CMS subscales, she asked her students if they believed that the data were accurate. The students overwhelmingly agreed that the graphs were accurate and were motivated to help resolve the problems together.

The subscale, My Classmates, had the highest percentage of students answering "never" or "sometimes" to the largest number of questions indicating having lower friendships and contact with peers (Fig. 10.1). Twelve students put a rating of "no" on the three "My Classmates" questions related to conflict among classmates: Kids won't argue with me; Kids won't hit or hurt me; Classmates won't tease me, call me names, or make fun of me. Also, 11 students rated "no" on the "Kids will not argue with me" question. These results indicated that over half of the students struggled with arguing, teasing, name calling, making fun of others, hitting, and pushing. At the same time, students reported more positive responses to the four questions about having friends in class and having fun with their friends.

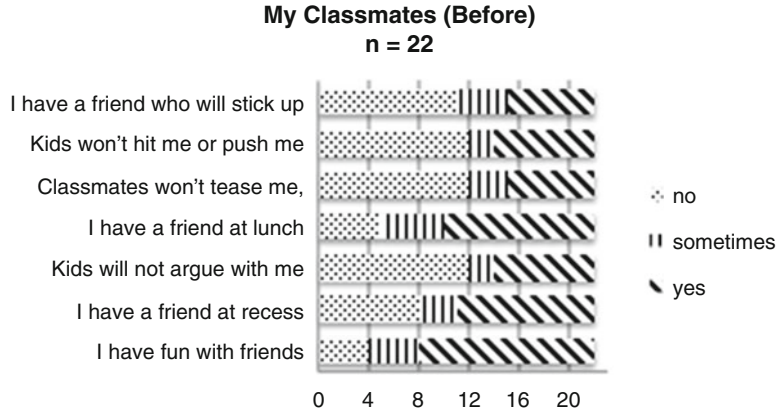

Fig. 10.1 Graph of data for My Classmates scale pre-intervention

Together, the teacher and students focused on identifying causes of peer conflict by brainstorming "Conflicts We Have" on a large poster board in the classroom. To gain further information and insight into the culture of the peer relationships, students were asked to raise their hand and give real-life examples of conflicts they had shared. The students identified 15 different types of conflicts that corresponded with questions on the "My Classmates" subscale that included accusing someone of stealing, lying, cheating, not sharing, abandoning activities and/or friends, yelling, hurting others' feelings, leaving others out, fighting, name calling, talking inappropriately, gossiping, and destroying other's property.

Then, the teacher gathered additional information using a "dot survey" by giving each student three stickers to vote on which conflict areas listed on the poster board were most frequent and problematic. The dot survey data showed that yelling/screaming, arguing, and lying were the highest priority concerns for students. However, through group discussion, students indicated that yelling/screaming, lying, gossiping, bullying, and being left out happened most often to them. Finally, students stated that talking about peers inappropriately and physical fighting happened the least often in the classroom. This highlighted a discrepancy in data regarding physical fighting on the "dot survey" and the hitting/pushing question on the ClassMaps subscale. Through discussion, students were able to state that though physical altercations did happen at school, they were not severe and could be related to age-appropriate play.

Planning and Implementing Classroom Changes

The students concluded that many of their perceived problems resulted from not having a class friend to help them feel better when they had a "hard day" or conflict with their peers. The students also thought that conflict occurred more often because some students felt "left out" from the classroom community. To resolve this issue

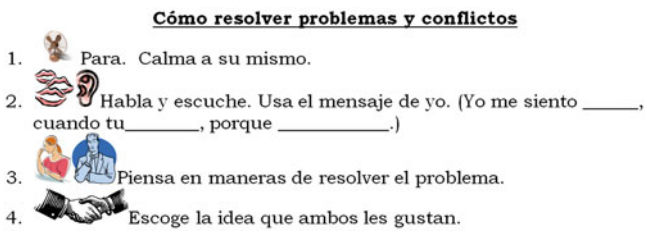
Cómo resolver problemas y conflictos
1. Para. Calma a su mismo.
2. Habla y escuche. Usa el mensaje de yo. (Yo me siento _____, cuando tu_____, porque _____.)
3. Piensa en maneras de resolver el problema.
4. Escoge la idea que ambos les gustan.

Fig. 10.2 Four "I" Message steps mini-poster in Spanish

and increase peer connectedness, the students and teacher decided to assign "amigos felices" (happy friends) as a micro-strategy. These classroom buddies were chosen by the teacher in order to avoid future peer conflict that could have occurred if some students felt left out when no one selected them as an "amigo feliz." They defined "amigo feliz" as a classroom buddy who helped a classmate feel better if the "amigo feliz" was having a hard day or a lot of conflict with other classmates. This strategy particularly centered around one young boy who frequently cried during class when he felt left out, but was also the frequent instigator of teasing and name calling in the classroom, as expressed by his peers.

Still, the teacher did not feel that the "amigo feliz" strategy would be sufficient to overcome the skill deficits in resolving peer conflicts autonomously. After brainstorming with her students, she identified further micro-strategies by consulting her fellow teachers and reviewing material in *The First Six Weeks of School* (Denton & Kriete, 2000). These materials reminded her of the usefulness of "I" Messages. The teacher modeled for students how to independently resolve conflicts by implementing the four steps of "I" Messages. The four "I" Message steps included these statements: "I feel (emotion identified) when you (action of other student) because (identify how it affects you). I need you to (identify the action you need from the other student)." She created a mini-poster for each student's desk that outlined the four steps to serve as a quick reference when students had conflicts. The mini-posters also included small graphics next to each step as a way to help students visualize the steps (Fig. 10.2). The four steps included:

1. Para. Calma a su mismo. (Stop. Calm yourself.)
2. Habla y escuche. Usa el mensaje de yo. "Yo me siento _____, cuando tu _____, porque_____. Yo necesito que _____. (Talk and listen. Use an "I" Message. "I feel _____ when you _____ because _____. I need _____.")
3. Piensa en maneras de resolver la problema. (Think of ways to resolve the problem.)
4. Escoge la idea que ambos les gustan. (Choose the idea that both people like.)

In the following week, each time students approached the teacher to complain about a conflict with a peer (particularly after lunch and recess), she would listen and then ask them what strategies they had tried to resolve the current conflict. More often than not, students could not describe any strategies that they used. She then

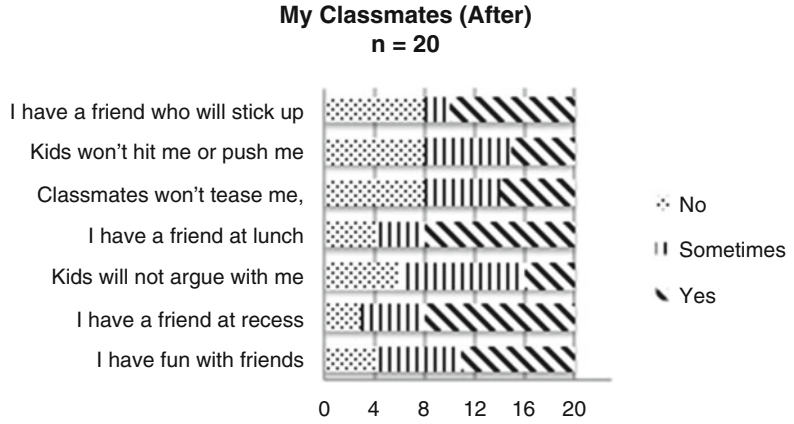

Fig. 10.3 Graph of My Classmates scale post-intervention

asked if they had communicated using an "I" Message. If they answered no, she recommended they use an "I" Message and sent them away from her to independently practice and directly communicate with their peers involved in the conflict. If the students answered that yes, they had tried communicating what they needed through an "I" Message and with no success; she offered to accompany the students as a mediator while the student expressed their needs using an "I" Message and practiced the four steps on the conflict resolution mini-poster.

Evaluating and Refining Classroom Data

After 1 week of modeling, role-playing, and prompting students to use "I" Messages, she asked how many students had been able to *resolve* a conflict independently through the use of an "I" Message in the previous week. Six students raised their hands to confirm that they had successfully, confidently, and independently resolved a peer conflict using the newly learned strategies. The teacher discovered that by implementing micro-strategies and making data-driven decisions based on student perceptions and input, there was a decrease in overall peer conflict in the classroom. Students were able to pinpoint classroom problems, identify areas of skill deficits and community bonds, and create a strategy for change. Additionally, the teacher was impressed with the results of the micro-strategies because they focused on promoting problem-solving skills and not just decreasing negative behavior.

Two months later, the teacher readministered the CMS to see the overall effect and maintenance of classroom changes. The My Classmates subscale indicated an overall improvement in student perceptions in peer conflict. Specifically, it indicated more feelings of having a peer stick up for them, fewer incidents of physical altercations, less frequent peer arguments, and more reports of having friends to play with them during lunch and recess (Fig. 10.3). The teacher had hoped for even more significant change in the My Classmates subscale scores. In a follow-up

classroom meeting, students reported having less peer conflicts, greater ability to identify areas of conflict, and were better able to solve problems without teacher support. The teacher reported having direct involvement in resolving peer conflicts with a decline in teacher interventions from seven-to-ten reports per day before the ClassMaps problem-solving meeting to three-to-five reports a day 2 months later. The micro-strategies implemented from the ClassMaps classroom meetings proved to be valuable in increasing the pro-social skills of the students.

Together the teacher and students brainstormed further strategies to deter peer conflicts. The strategies generated from the collaborative class brainstorming activity generated a number of potential interventions: creating a safe area of the classroom dedicated to conflict resolution, increasing the frequency of modeling, role-playing conflict resolution skills by students, and celebrating successes during the morning meetings. Because the students and teacher were well versed in having a daily routine Morning Meeting as outlined in, *The Morning Meeting Book* (Kriete, 2002), they decided to identify and reinforce incidences of students resolving conflicts independently of teacher support during the "Share" portion of the daily Morning Meeting.

Overall, the CMS proved to be a useful tool in increasing student and teacher perceptions of peer conflict, and provided a medium for the teacher and students to collaborate and solve problems together. The teacher enjoyed the student-driven ideas to resolve classroom issues, and students perceived the classroom changes as more authentic and meaningful.

Implementation and Professional Development

Collaborating for positive and meaningful change as illustrated in the case study above takes leadership. Leaders in schools will need to attend to two key areas of CMC implementation: skills in data usage and school integration. In most cases, CMC occurs within school-based problem-solving teams and prior research has established that such teams can be highly effective in prompting lasting and important changes in school behaviors. Still, an important challenge is that school-based teams very often struggle to implement all the important steps of a data-based problem solving with good fidelity. Therefore, the CMC leader will need to attend to this problem by supporting the professional development of educators in data use. A typical professional development program might use strategies such as teaming, coaching, and guided practice focusing on the six pragmatic data-use skills: (1) Knowledge of diverse data collection protocols; (2) Selecting protocols that are best suited to answer questions; (3) Collating and graphing data; (4) Discerning trends and differences in data; (5) Using data and data trends to make decisions; and (6) Planning interventions to match the data.

The second key CMC implementation issue is how to integrate CMC into an entire school efficiently and effectively. The most common scenario is one in which a school professional such as a school psychologist decides to adopt CMC into their own individual practice. The school psychologist should identify a single teacher

who is willing to try CMC in the classroom and support this teacher well, so that there is some improvement as determined by the teacher. The ideal teacher candidate is someone who is influential in the school (e.g., perceived leader by others), eager to try CMC, a highly motivated teacher, and one with whom there is a positive professional working relationship. Once there is success with this teacher's classroom, the news will spread and other teachers will likely want to try CMC. The result of this initial work will be a number of teachers "on the ground" who already accept CMC, which will be important for the next phase of CMC integration at the school level.

The next phase is focused on integrating CMC in the entire school. Continuing on with the same example, the school psychologist should meet with the gatekeepers of the school who have decision-making power and authority to make changes, which always includes the principal but also highly influential teachers, school board members, and community leaders. Next, it will be important to identify the stakeholders who will be affected by such school-wide changes, e.g., parents, teachers, students; and, include them in the planning and decisions from the beginning. An initial task will be to determine the purpose and concrete goals of implementing CMC at the school level, e.g., improving school success. Another task will be to consider other ripple effects that school-wide CMC implementation may have on teachers, students, families, and community such as overloading teachers' work day; and, how to address them. This type of collaborative decision-making is critical for the successful implementation and sustainability of CMC in schools.

Teachers, other school personnel, and mental health workers are encouraged to learn more about CMC and develop skills in implementing them. Two manuals including copy ready forms are highly recommended: The second edition of *Resilient Classrooms* (Doll, Brehm et al., in press) will be published in spring 2014 and *Resilient Playgrounds* (Doll & Brehm, 2010) extends CMC to playgrounds and contains the surveys for resilient classrooms. Additional information about the CMS can be found in Doll, Jones, et al., (2011). For up-to-date information on CMC including consultation and support, please contact the principal investigator, Dr. Beth Doll at bjdoll2@unl.edu.

Conclusion

This chapter has provided a description of CMC, a resilient classroom framework. Theoretical and empirical work supporting the use of CMC was discussed briefly, an applied case study was presented as an illustration of the model, and implementation and professional development were discussed. We hope that the reader has a deeper understanding of how CMC might be used to enhance resilience in schools. Translating resilience research to clinical practice is challenging and continued efforts in expanding and extending this model as well as adaptations of it are crucial. Although CMC has not been examined in alternative youth-serving settings (e.g., after-school programs, churches, correctional institutions, residential settings), future work in these settings is critical to the accumulation of resilience evidence that documents its usefulness to help all children succeed despite daily obstacles.

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Chapter 11
Building Resilience in Three Australian High Schools, Using the Resilience Doughnut Framework

Lyn Worsley

Defining Resilience

There have been, over the last 30 years, a number of definitions of resilience used with reference to individuals as they negotiate adversity. An international resilience project defined resilience as "the universal capacity which allows a person, group or community to prevent, minimise or overcome damaging effects of adversity" (Grotberg, 1995, p. 6). A more recent definition notes that:

> Resilience is the capacity of individuals to navigate their physical and social ecologies to provide resources, as well as their access to families and communities who can culturally navigate for them (Ungar, Brown, Liebenberg, Cheung, & Levine, 2008, p. 168).

Another definition acknowledges the changeable and reactive process of building resilience in the face of adversity:

> Resilience refers to the process of overcoming the negative effects of risk exposure, coping successfully with traumatic experiences, and avoiding the negative trajectories associated with risks (Fergus & Zimmerman, 2005, p. 399).

The above definitions demonstrate that there are several lines of thought around how to conceptualise resilience. Firstly, resilience can be conceptualised as a personal or group capacity that has been developed and achieved. Second, resilience can be represented as a dynamic process, affected by resources, adversity and the capacity of individuals. Thirdly, it can be seen as an individual's response to adversity as a practice and strengthening effect in building resilience. From this we can see that resilience is not a fixed state but rather a process which is changeable, dynamic and influenced by competing environmental influences.

This chapter will outline a framework showing potential pathways which can build resilience successfully. The framework is based on known contexts and how they

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interact with each individual. This framework has the potential to promote future planning, programming and policy development effecting positive changes in young people and can be used as a possible strengthening tool against mental health difficulties.

By highlighting the availability of personal strength resources, the framework maps an individual's capacity for constructively dealing with adversity. Theories that have influenced the development of the framework consider the internal qualities and the environmental contexts in which an individual develops (Benard, 2004; Grotberg, 1995; McGraw, Moore, Fuller, & Bates, 2008; Rutter, 2006; Ungar et al., 2008). The implication of these theories to practical application is best summarised by the dynamics associated with building resilience. Firstly, there are certain internal or personal characteristics that enable a person to bounce back from adversity (Benard, 2004; Grotberg, 1995). Secondly, external contexts or environmental influences contribute to the building of certain internal assets or personal competencies that help a person become resilient (Fuller, 1998; Ungar, 2008; Ungar et al., 2008; Werner, 2001). And finally, the interaction of certain internal characteristics with available external resources may hinder or enhance a resilience mindset, ultimately affecting an individual's reaction to adversity (Rutter, 2008; Sun & Stewart, 2008). These dynamics support the multifaceted definition of resilience, which is used for this chapter, indicating resilience is the process of continual development of personal competence while negotiating available resources in the face of adversity.

Research on Resilience

During the last two decades of the twentieth century, behavioural scientists interested in developmental psychopathology shifted their focus from exploring negative developmental outcomes to researching successful adaptation despite adversity. A rapidly growing body of literature has now accumulated that deals with the phenomenon of resilience. Early efforts were primarily focused on personal qualities of "resilient children" such as autonomy and high self-esteem (Garmezy, Masten, & Tellegen, 1984). However, as work in the area developed researchers increasingly acknowledged that resilience might also derive from factors external to the child (Luthar & Cicchetti, 2000).

Subsequent research led to the delineation of three sets of factors implicated in the development of resilience in children: (a) attributes of the children themselves; (b) aspects of their families and (c) characteristics of their wider society and environments (Garmezy et al., 1984). One project investigated protective factors that promote resilience in young Australians. The findings from this qualitative study found five categories of protective factors (community, family, individual, peers and school) that compensated for a child's risk factors (Fuller, McGraw, & Goodyear, 1998). Another project studied families living in caravan parks along the New South Wales coast, revealing eight categories of strengths that were evident in families that survived and thrived. One theme that emerged from the respondents captures the essence of being resilient during crisis and adversity with half of the respondent noting that they became aware of their family strengths when they were faced with

serious challenges in their family. Other categories were, open and positive communication, togetherness, sharing activities, affection, support, acceptance and commitment (Geggie, Weston, Hayes, & Silberberg, 2007). Many studies of youth from culturally marginalised populations have affirmed the study of strengths and protective factors, showing that the families, communities and social supports interact to build competence in the developing child (Luthar, Chicchetti, & Becker, 2000; Luthar, 2000; Zimmerman, Bingenheimer, & Behrendt, 2005). Longitudinal research into mentoring programs supported strength-based approaches particularly in building on protective factors (Campbell & O'Neill, 1985; Greenberg, 2006). With reference to the emerging positive psychology movement, Seligman (1998) argued that:

> New research has discovered that there is a set of human strengths that are the most likely buffers against mental illness: courage, optimism, interpersonal skill, work ethic, hope, honesty and perseverance. Much of the task of prevention will be to create a science of human strength whose mission will be to foster these virtues in young people (p. 7).

The above quote suggests that future enquiry should be geared towards finding simple and practical ways that promote human strength. However, while there is a predominant focus on the internal strengths and characteristics of individuals who appear to be resilient in the face of adversity, there is a growing body of research that looks at the external or protective factors around individuals who appear resilient. Furthermore, there is the recognition that adversity or a degree of risk has a place in the development of resilience. While the strength research focuses on the positive factors in a child's life, there is an implication that these factors are tested and strengthened in the face of adversity. The adversity appears to strengthen both the internal characteristics of the individual and the contexts and protective factors in which they exist (Fergus & Zimmerman, 2005).

While previous research on resilience focused on the individual, it has found that the individual is nested within many contexts which interact and build resilience. However, the challenge for application of this research is the current western cultural belief in individualism, which undermines the efforts in promoting a culture of connectedness and belonging (Wright & Masten, 2005). Furthermore, through long-term developmental studies that examined young people in high-risk environments, it has been found that changing the life trajectories of children and youth from risk to resilience starts with changing the beliefs of the adults in their families, schools and communities (Benard, 2004).

Resilience and Mental Health

Resilience research has the potential to add substantially to the study of mental health by identifying the strengths of individuals and communities in order to replicate what is working with those who are going through adversity successfully (Liebenberg & Ungar, 2009). Studies have identified several important risk factors that influence levels of depressive symptoms such as adverse life events (Pine, Cohen, Johnson, & Brook, 2002), bullying (Seals & Young, 2003) and social anxiety (Chartier, Walker, & Stein, 2001). A study conducted by Hjemdal and

colleagues found that there was a strong negative correlation with each of the five resilience factors (personal and social competence, structured style, social resources and family cohesion) in the READ scale (Hjemdal, Friborg, Stiles, Rosenvinge, & Martinussen, 2006). A subsequent study found that anxiety and low social competence were also found to predict depressive symptoms (Hjemdal, Aune, Reinfjell, Stiles, & Friborg, 2007). A study examining the influence of resilience and anxiety on self-esteem found a significant negative correlation between resilience and trait anxiety, indicating that persons with anxiety disorders demonstrate decreased resilience (Benetti & Kambouropoulos, 2006). Conversely, Donnon and Hammond (2007) conducted a study based on strength research that examined the presence of protective factors and level of bullying behaviour, acts of aggression and vandalism. They found that there was a significant negative correlation with the number of self-reported protective factors or strengths and acting out behaviour. The results showed that the greater number of protective factors, the less likely were the youth to engage in acting out behaviour (Donnon & Hammond, 2007b). Furthermore, in a subsequent study it was found that the greater number of protective factors and strengths, the greater the engagement in constructive behaviours such as helping others, good health, volunteering, leadership, resisting danger and delaying gratification (Donnon, 2007). Thus, increasing the number of protective or strong positive interactions in a young person's life may help develop a more resilient mindset.

School Resilience Programs

Strengthening positive interactions with communities, families and peers can foster environments rich in the developmental supports and opportunities needed to develop resilience in young people. The place of educational facilities in helping to develop resilience in young people cannot be overestimated since a young person will develop friendships, skills and mentor relationships in their school. School is a place where children will be socialised to cope with future interactions and are the context where significant change can be implemented with community, families and peers. Benard & Slade (2009) noted that teachers and other support staff need to be encouraged to become "turnaround" people and schools "turnaround" places. Thus, "turnaround teachers" demonstrate and create nurturing and empowering climates that engage young people's innate resilience by developing their capacities for positive development and school connectedness (Benard & Slade, 2009).

There is a range of resilience-promoting programs used in schools and youth organizations. Some school programs focus on building internal coping skills and academic buoyancy (Frydenberg, 2007; Martin & Marsh, 2008), while others show change in the net effect of risk versus protective factors in building resilience (Fuller, 1998; McGrath, 2003). One study used the Penn Resilience Program (PRP), a cognitive behavioural program focusing on building optimism, (Gillham et al., 2007; Reivich, Gillham, Chaplin, & Seligman, 2005) to assess its effectiveness in reducing depression symptoms in youth over a 2-year period. Inconsistent results were found when implementing the program across three different schools, which appeared to

relate to the relative level of staff support of the program. Given the apparent success of the PRP (Reivich et al., 2005) with individuals as well as with larger groups (Seligman, 2008; Seligman, Schulman, & Tryon, 2007), further investigation was recommended in how to implement a process of developing adolescent resilience in schools using available resources such as teachers and parents. It was noted (Gillham et al., 2007) that using university students to implement programs was problematic and using teachers and staff who already connect with the students appeared to be more effective in promoting resilience in students.

Resiliency researchers (Masten, Herbers, Cutuli, & Lafavor, 2008) have developed a framework for resiliency research, policy and practice. They suggest three major strategies that resiliency programs can employ: (a) risk-based approaches which aim to reduce adversity, (b) asset-focused strategies which attempt to improve assets in the lives in children and (c) process-oriented designs which attempt to mobilise children's adaptive capacities such as improving attachment relationships with parents or providing social skills training (Masten et al., 2008).

An extensive evaluation of resilience programs conducted by Windle and Salisbury (2010) found that of the 21 interventions reported, very few had been subjected to evaluation or controlled trials. It was noted that programs were designed to be preventative and to better equip people and communities should adversities be experienced. Some were conducted in schools and others in communities with a public health approach. From their findings they concluded that more research has focused on identifying protective factors that underlie the resilience process but less on designing and testing interventions that might change negative outcomes (Windle & Salisbury, 2010). A comparative study of resilience comparing the World Health Organization (WHO) health-promoting schools (where trained teachers and staff focus on increasing connections with community organizations, families and parents) and other schools among a Chinese population found significant increase in students and teachers resilience scores in health-promoting schools (Wong et al., 2009). This study emphasized the potential for whole school programs that strengthen connections and build resilience to exert positive changes in students and staff. This research suggests that programs targeting resilience development should be evaluated for their overall community building effects as well as the mental health benefits. Furthermore, it seems that implementing programs in educational settings should use and support existing relationships with teachers and support staff within those schools.

The Resilience Doughnut Framework

The framework to be outlined in this chapter is named the Resilience Doughnut as it is in the shape of a doughnut, showing two circles, one smaller nested within the larger circle (Worsley, 2006). The inner circle represents the internal individual characteristics of an individual and the outer circle represents the external contexts within which an individual develops. The external contexts are divided into seven sections, each of which has been shown in the research to contribute to building individual resilience. The interactional nature of the internal and external worlds of

Fig. 11.1 The Resilience Doughnut framework (Worsley, 2006)

an individual is represented by the visual connection between the inner circle of the framework within the external circle. Thus, the two circles, an inner circle and an external circle divided into seven external contexts, represent the essence of the resilience framework (see Fig. 11.1).

The Internal Structure of the Resilience Doughnut

The inner circle of the framework, representing the internal characteristics of an individual showing resilience, gives expression to a number of concepts which repeatedly appear in research. These concepts contribute to raising self-esteem (Benard, 2004; Frydenberg, 2007; Grotberg, 1995; Werner, 1992), self-efficacy (Benard, 2004; Martin & Marsh, 2006; Seligman, 1992; Ungar, Toste, & Heath, 2005) and an individual's awareness of their available resources (Cameron, Ungar, & Liebenberg, 2007; Fuller et al., 1998; Masten et al., 2004; Ungar, 2004). In combination they contribute to resilience as noted by Grotberg's *I have*, *I am* and *I can* categories (1995). These categories are the basis of the internal individual concepts for the Resilience Doughnut which interact with the external contexts of the framework as shown in Table 11.1.

The External Structure of the Resilience Doughnut

The outer circle of the framework, divided into seven sections, supported by research shows the environmental contexts where resilience can be ignored, recognised or developed.

Table 11.1 Internal concepts of the Resilience Doughnut with construct and related external contexts

Concept	Constructs as noted by Grotberg (1995)	Interacting external contexts
Awareness of resources (I Have)	I have people around me I trust	Parent, family
	I have people who set limits for me so I know when to stop before there is danger or trouble	Parent, family
	I have people who show me how to do things right by the way they do things	Community, education
	I have people who want me to learn to do things on my own	Peer
	I have people who help me when I am sick	Parent, family
Self-concept, self-esteem (I am)	I am a person people can like and love	Parent, peers
	I am glad to do nice things for others and show my concern	Family, peer
	I am respectful of myself and others	Community
	I am willing to be responsible for what I do	Skill, peer
	I am sure things will be all right	Community
Self-efficacy (I can)	I can talk to others about things that frighten me or bother me	Peer, education, family
	I can find ways to solve problems that I face	Skill, money
	I can control myself when I feel like doing something not right or dangerous	Skill, peer, money
	I can figure out when it is a good time to talk to someone or take action	Peer, parent
	I can find someone to help me when I need it	Education, peer

These seven contexts are labelled *parent*, *skill*, *family*, *education*, *peer*, *community* and *money*. A number of research constructs make up each context with a number of common features between contexts (Worsley, 2006). These features appear to support the internal structure of the framework, which represent self-esteem or self-concept (*I am*), self-efficacy (*I can*) and awareness of resources (*I have*) as shown in Table 11.1. The following section will consider each part separately, outlining constructs from research which link to building resilience in an individual.

Parent

A number of factors were found within the context of the parent relationship and the development of resilience in children and young people. These were discipline styles (Baumrind, 1991), parental monitoring and control (Suchman, Rounsaville, DeCoste, & Luthar, 2007; Ungar, 2009), parent decision making (Baumrind, 1996; Suchman et al., 2007), parental communication (Ungar, 2009), parental warmth and affection (Fuller et al., 1998; Suchman et al., 2007), parental satisfaction (Dunst, Hamby, Trivette, Raab, & Bruder, 2000; Fuller et al., 1998), parental cooperation (Walsh, 2006), parental values of independence and self-control (Duckworth & Seligman, 2006) and parent's sense of purpose (Grant, 2004; Walsh, 2009).

Skills

A number of factors were directly related to the development of resilience through acquiring a skill. These were hardiness (Dolbier, Smith, & Steinhardt, 2007), optimistic thinking (Reivich & Gillham, 2003; Schueller & Seligman, 2008; Seligman et al., 2007), problem solving (Caldwell & Boyd, 2009; Reivich & Shatte, 2002), feelings of success and achievement (Martin, 2008; Masten & Coatsworth, 1998), being recognised for their skill (Brown, D'Emidio-Caston, & Benard, 2001), able to try new experiences (Garmezy et al., 1984; Ungar, Dumond, & McDonald, 2005), self-confidence (Benard, 2004; Masten & Coatsworth, 1998) and having people who encourage and admire the skill (Bottrell, 2009; Busuttil, Gillham, & Reivich, 2007). Furthermore, through difficulties associated with developing a skill, individuals are exposed to elements of adversity and challenges associated with failure and persistence (Griffin, Martinovich, Gawron, & Lyons, 2009; Hooper, Marotta, & Lanthier, 2008; Linley & Joseph, 2005). It was also found that deviant or antisocial skills are negatively related to the development of constructs associated with resilience such as perseverance, persistence, carefulness, caution and courage (Munford & Sanders, 2008; Ungar, 2001).

Family

There are many areas of research that consider family structure (Hetherington, 2003) and family systems (Bronfenbrenner, 1986; Furstenberg & Teitler, 1994) in developing resilience. Of significance is identity formation through belonging to a group of related people (Masten & Shaffer, 2006). Other aspects are connectedness (Geggie et al., 2007), feeling accepted (McGraw et al., 2008), showing respect (McGraw et al., 2008), having family traditions (Geggie et al., 2007), having an interested older adult (Furstenberg, 2005), wider family networks (Fuller, 2004; Oglesby-Pitts, 2000), going through difficult times (Geggie et al., 2007; Walsh, 2006), a family identity (Wiener, 2000), adults with high expectations (Dandy & Nettelbeck, 2002; Oglesby-Pitts, 2000), family holidays (Geggie et al., 2007), sibling connectedness (McGraw et al., 2008), strong spiritual values (Jonker & Greeff, 2009; Oglesby-Pitts, 2000), a positive world view (Whitten, 2010) and responsibility within the family (Geggie et al., 2007).

Education

There are a number of characteristics of education associated with building overall resilience as well as academic resilience. These are a sense of belonging and acceptance (Battistich, Schaps, & Wilson, 2004), a significant relationship with at least one teacher (Jennings, 2003), teachers with high expectations (Castro, Kelly, & Shih, 2010; Masten et al., 2008), a resilience-promoting curriculum (Stewart, Sun, Patterson, Lemerle, & Hardie, 2004), participation in extra activities, attribution (Stewart et al., 2004), engagement (Martin, 2008; Sharkey, You, & Schnoebelen,

2008), teachers with an optimistic and positive world view (McCusker, 2009; Parker & Martin, 2009), inclusive environment (Howard & Johnson, 2000; Johnson & Lazarus, 2008) and enjoyment of and participation in learning.

Peers

The development and maintenance of friendships is a major task during adolescence because social skills and a sense of belonging dominate their moral development (Horn, 2005; Schonert-Reichl, 1999). Research noting those young people who have developed resilience in the context of a strong peer group (Masten & Coatsworth, 1998) have groups that are characterised by a number of aspects. These are belonging and acceptance (Schonert-Reichl, 1999), conflict (Horn, 2005), cooperation and sharing (Daddis, 2008), closeness, group identity (Horn, 2005) and cohesion and peer support, conformity (Sanders & Munford, 2008), close friendships, forgiveness, care and concern, loyalty to the group (Schonert-Reichl, 1999; Wolseth, 2010), self-regulation (Noeker & Petermann, 2008) and social awareness (Pineda Mendoza, 2007).

Local Community

Having links to the local community and supportive social services has been shown to have a major impact on contributing to building resilience (Dunst et al., 2000). Common research themes are: connections to sporting clubs, religious or activities groups (Ungar et al., 2005), belonging to a local area (Bottrell, 2009), positive relationship with another adult (Fergus & Zimmerman, 2005), family friendships (Sanders & Munford, 2006), mentoring relationships (Beltman & MacCallum, 2006; Zimmerman et al., 2005), belonging to a faith group (Crawford et al., 2006; Grant, 2004; Oglesby-Pitts, 2000), being involved in a community that values children and a community that shares a purpose (Van Dyke & Elias, 2007).

Money

This aspect refers to the economic stability (McLoyd et al., 2009) and affluence of the individual's family (Pittman, 1985) as well as attitudes towards the acquisition of material possessions. Research shows there are a number of aspects related to money that contribute to building resilience. These are economic stability for basic needs (McLoyd et al., 2009), a sense of control over earning money (Peterson, Park, Hall, & Seligman, 2009), understanding the value of money (Fuller et al., 1998), ability to wait and think about spending (Duckworth & Seligman, 2006), ability to contribute to daily tasks (Munford & Sanders, 2008), self-discipline and self-efficacy with regard to spending (Masten & Coatsworth, 1998), budgeting and planning, a sense of gratefulness (Peterson, Ruch, Beermann, Park, & Seligman, 2007), care of material possessions, and a strong work ethic (Peterson et al., 2009).

Linking the External Factors in the Resilience Doughnut to Build Internal Resilience

In each of the seven environmental contexts the potential exists to enhance positive beliefs within the individual, helping to develop resilience (Benard, 2004; Fuller, 2004; Resnick et al., 1997). For example, strong parents, teachers or community mentors can provide positive intentional relationships where the individual develops a sense of self, enabling them to interact with peers and future employers in ways that continue to develop their life skills for future opportunities. It is also suggested that most resilient individuals have only some, and not all seven, contexts working well in their life (Dolbier et al., 2007; Eisenberg, Ackard, & Resnick, 2007; Fuller-Iglesias, Sellars, & Antonucci, 2008; Noeker & Petermann, 2008). The potential therefore of using the model would be to ascertain the number factors needed, the strengths of each factor and ways to use these strengths to enhance positive beliefs to change a life trajectory from one of risk to resilience.

The proportion of strengths versus weaknesses that can change a trajectory from one of the risk to resilience is supported by the positive/negative (P/N) ratio put forward by Macial Losada (Losada, 1999). (Losada & Heaphy, 2004) measured the instances of positive feedback versus negative feedback in teams. From a number of mathematical studies considering the complex dynamics of high performance teams, (Losada & Heaphy, 2004) examined the positive connectivity within the teams. A zone was established within which the teams would reach creativity and flexibility leading to high performance. Above or below the zone, the teams would be limited by routines, become inflexible and lead to low performance. The zone was later referred to as the Losada line (Losada & Heaphy, 2004). Further studies found that those individuals who flourish (those who do well despite their adversity) have a P/N ratio above the Losada line (ratio = 2.9013) and those who languish (those who get weaker and suffer more due to their adversity) have a P/N ratio below the line (Frederickson & Losada, 2005). It appears that the Losada line separated people who were able to reach a complex understanding of others from those who did not (Waugh & Frederickson, 2006).

When considering the ratio of positive, intentional relationships versus those which were negative or weaker as a distinguishing factor in developing resilience, a study by Donnon and Hammond (2007a) found there to be a proportion of the 31 potential strengths in young people exhibiting resilient behaviour. These strengths were both individual characteristics and social skills according to the relationships with peers, family and teachers. These 31 strengths were divided into 6 categories according to the number of strengths present. Analysis of a study with over 2,000 youth across a variety of schools revealed there to be a marked decrease in difficult behaviour and poor emotional regulation for those possessing strengths in the third category, that is, 10–15 of the 31 strengths (ratio above 1:3). Considering the interactional nature of the individual characteristics that show resilience, it is evident from this study that those with a certain degree of internal character strengths are able to evoke positive and pro-social experiences. In analysing the nature of the

changes observed with the young people it can be seen that the proportion of the strengths observed was able to tip the balance toward pro-social behaviours, which in turn develop resiliency (Donnon & Hammond, 2007a).

In applying the positive versus negative ratio, and the research by Donnon and Hammond (2007a) to the Resilience Doughnut framework, the number of stronger external factors would need to reach a P/N ratio that offset the weaker factors present at any one time. Considering each of the external contexts and their potential to influence all three internal concepts, it is possible that clusters of only a minimum number of external contexts may be helpful to build resilience. Interventions aimed at helping participants focus on a minimum of three strong contextual factors, use a ratio of positive versus negative experiences of 3.4 (i.e. above the Losada line) in order to evoke positive change. It would appear that by linking three strong factors together in an activity or event, these factors become even stronger and would encourage the subsequent strengthening of other factors in the framework. Thus, the key to using the Resilience Doughnut framework to develop resilience is to encourage the interaction of a minimum of three strong factors at any one time. The aims, therefore, of linking three strong factors use the principals of strength-based therapies in order to affect change, tipping the balance toward pro-social behaviour, which in turn develops resiliency.

The Resilience Doughnut Framework and Current Frameworks of Resilience

It appears that the Resilience Doughnut is possibly a combination of all three models proposed by (Fergus & Zimmerman, 2005), combining compensatory, protective and challenging effects with the presence, absence or interaction of three or more strong external contexts in affecting outcomes. The Resilience Doughnut appears compensatory by focusing on the strong contexts not associated with the risks. It appears protective by showing how the interaction of only some existing strengths in the system can neutralise the effects of weaker factors. It also shows a challenge effect when strong contexts are mobilised during adversity, preparing individuals for future challenges. Within each of the external contexts the child could be exposed to conflict and tensions, which in turn promote social skill development and mastery (parental control versus warmth, skill mastery, family identity and roles, educational expectations, peer belonging and acceptance versus conflict, community support and money management) (Griffin et al., 2009; Hooper et al., 2008; Linley & Joseph, 2005).

The Resilience Doughnut framework appears to be different from the present models of resilience in three main ways. Firstly, it is based on the strength of the external factors in an individual's life. Secondly, it has seven external contextual factors. Thirdly, the framework proposes that the turning point, evoking changes in the trajectories of individuals, is based on the presence or absence of a number of contextual factors. This framework is suggestive of a more practical application in how to enhance resilience development.

Practical Application of the Resilience Doughnut Framework in Three Secondary Schools

The application of the Resilience Doughnut framework has been trialled in numerous schools across Australia. The following case studies show the application and results of three schools in Victoria and NSW, Australia. Each school has used the concepts of building on the available strengths for each child's external protective factors. Furthermore, each of the environmental contexts of the schools has differing community strengths, socio economic factors and organisational structures. Case Study 1 is a Catholic girls high school (ages 12–18 years), with low to medium private tuition fees, in a middle class suburb south west of Melbourne, Victoria. Case study 2 is a Catholic boys high school with medium to high private tuition fees in a middle class suburb of Sydney, NSW. Case study 3 is a NSW state High school (part of a larger college with four campus ages 12–16) attracting 90 % migrant boys with no private fee tuition.

Each school had differing motivations for using the Resilience Doughnut framework in establishing their intervention programs, and each school contacted the director of the Resilience Doughnut independently after anecdotal and observational reports by staff. Case Study 1, the head-teacher welfare, and the years 8, 9 and 10 advisors in the school, reported a high proportion of girls experiencing anxiety with regard to school achievement. From discussions with the school staff and principal, it was suggested that the students were nested within a culture of over-protectiveness, which appeared to support the girls giving up easily under adverse situations. The head teacher welfare contacted the Resilience Doughnut director to implement a resilience intervention program in year 8. Case Study 2, the counselling staff reported that there was a proportion of boys attending the large boys school who were not connecting to peers and teachers, due to behavioural and mental health difficulties, which resulted in low school attendance. The counselling staff were prompted to run an intervention program for the younger students after four boys, who were in year 10 at the time, reported the lack of support in the early years had subsequently affected their performance in the middle years of high school. Case Study 3, senior high school staff had noted that there was a performance drop with the boys from the junior campus as they entered the senior co-educational campus, which appeared to be due to high anxiety around social skills, as reported by the counselling staff, resulting in a higher drop out rate in the senior years.

There were no preliminary data collected to establish the validity of the concerns of each of the schools, however, each school trained key staff in the use of the Resilience Doughnut framework and, in consultation with the author, adapted an intervention program to suit the needs of the school and the desired outcomes. The intervention program was based on teaching key people the concept of the Resilience Doughnut and adapting the intervention to suit the needs of the school to help them find ways to strengthen the strong factors in each child's life. The programs used parent and teacher forums to teach the concept and to apply it practically. The in-class program sought to teach each child the concept and facilitate them to apply it

to others and themselves. The aim of the programs in each school was to help the students to identify and activate their strengths to build their resilience. Furthermore, it was hoped that the students and school communities would be more connected and active in supporting one another.

The Resilience Doughnut Intervention Basic Program

The resources that are used to deliver the basic program are as follows:

- The floor model (a large jigsaw floor model of the Resilience Doughnut).
- Small jigsaw pieces and case studies of students from various ages and stages.
- A set of A4 worksheets to use in class for individual assessment of strengths.
- An On-line Resilience Doughnut game (students allocated log in details to their strengths and journal the resilience building process).
- Practitioner pack, downloadable worksheets and class teaching instructions.

The basic program consists of a teaching component of the framework, where parents, staff and students are taught about the seven factors of the Resilience Doughnut by an accredited trainer. Accredited trainers hold a licence to teach the model by completing a certificate with the Resilience Doughnut Pty Ltd. Various tools are used to teach the model. This begins with the introduction of a floor model where participants gather around the model in a circle and are presented with a story about a young boy or girl and the factors that helped him or her to cope with adversity. Participants are then divided into small groups to discuss case studies, using small puzzles to conceptualise the framework for each case. For example, a 14-year-old boy, named Sam, is presented giving some details of the strengths and weaknesses in each of his factors. Each group gives a score from 0 to 10 as to the strengths of each factor in his Resilience Doughnut. The final scores for Sam's doughnut reveal his highest three strengths. The group then discuss a project or event that can be arranged to link Sam's three strengths together to help build his resilience. Participants are then invited to reflect on the effect of linking his three strengths on the other areas of his life.

After the teaching component, students are then invited to guess their own strengths in their own lives using a worksheet to help them to self-reflect. They then can log into the on-line version of the Resilience Doughnut computer game. The on-line game consists of ten statements about each of the seven factors in the Resilience Doughnut framework. Using a 6-point likert scale, students scale each of the 70 statements, giving a total score for each factor. Space is made, on each on-line game, for students to journal the aspects of the factors that they enjoy or like. At the completion of the on-line game, three strengths are highlighted and suggested ways to build these strengths for each student is recorded. Students are able to revisit and resubmit the on-line game at any time to compare their progress.

In implementing the basic program into the schools and various organisations, each school is encouraged to adapt the theoretical model to the context of the school,

encouraging contacts in the parent, education, community, peer, family, skill and money factors to interact in different ways. Each school is therefore encouraged to use the results of the basic program in various ways with the main aim to strengthen each individual student's three Resilience Doughnut strengths as established from either the on-line game or from discussion with each student. Since parents and teachers are taught the concept of the Resilience Doughnut, they are invited to be involved in helping students to link their strengths together in either a project or an event. Suggested ways of creating "doughnut moments" are given, where three strengths are linked together at the one time. The aim of this exercise is to have a common language used by parents, teachers and students while linking their strengths to increase the intentional, positive situations that build resilience.

Case Studies

For the three case studies, measures were used to tailor to the desired outcomes for each school, and the students were tested prior to and each year post-intervention. The basic intervention program was implemented in school years 7 and 8 (ages 12–13) in Case Studies 1 and 2, and in school years 7–10 (ages 12–16) in Case Study 3. The following will outline the methods of implementing the programs and measures used in each of the schools.

Case Study 1

Case Study 1 is a Catholic girls school (low fee) in middle class area. Subjects were 203 girls, aged 13 years from year 8 (second year of high school). The all-girl school has a good academic reputation and attracts students from a wide area on the outskirts of Melbourne. The focus in the school is based on social justice and compassionate care for others.

Method

Two teachers (year 8 advisor, and physical education teacher) were selected by the Principal of the school to attend a 2-day accredited training program on the Resilience Doughnut, where they learnt how to implement the Resilience Doughnut framework into a school environment. Two further external accredited trainers attended the school to assist the trained teachers in implementing the Resilience Program within the school and parent community by,

1. Conducting a staff development day in the use of the Resilience Doughnut framework in welfare, discipline and resilience building programs in the school. The teaching component was delivered using the steps outlined above for the basic program and by applying the framework to a number of case studies relevant to the school community.

2. Conducting a parent training evening on the use of the Resilience Doughnut framework in parent, family and community environments, and preparing parents for the year 8 resilience programs to be implemented in term 4. The basic program was delivered using case studies relevant to parents and community members.
3. Teaching all students in year 8 how to apply the Resilience Doughnut framework using teaching tools and the on-line Resilience Doughnut game. The format of the basic program was delivered in class, using case studies and helping each student assess their individual strengths as mentioned above.
4. Following the 2 days of intense teaching, the students participated in an interdisciplinary program designed to build resilience during term four of the school year. The program consisted of 6 weeks of independent learning culminating in a challenge experience linking their three strengths over 3 days and two nights. The independent learning curriculum, supported by the teaching staff, focused on optimistic thinking, discovering individual strengths and finding opportunities to learn. During the program each student set a goal for each of the three strengths and were asked to design and undertake a strategy in order to link and further develop their strengths both in the challenge experience and in their independent learning curriculum.
5. Teaching staff worked in mentor roles initiated by the students and each students challenge experience involved her three strong factors as indicated by the Resilience Doughnut on-line game.
6. Each student reported on their challenge experience via presentations or visual displays to parents, community, school staff and peers at the graduation evening for all year 8 students.

Measures

The measures used were:

1. Multidimensional Anxiety Scale for Children, shortened version (MASC-10), (March, 1997). The Masc-10 (10 items) is designed as a screening tool to explore symptoms of anxiety in children aged 8–19 years, taking approximately 5 min to administer giving a total score.
2. The Children Depression Index, shortened version (CDI-10), (Kovacs, 2003). The CDI (ten items) is designed as a screening tool to explore symptoms of depression in children aged 7–17 taking 5–10 min to administer giving a total score.
3. The Child, Youth Resilience Measure (CYRM) (Ungar, 2008). The CYRM (28 items) is a screening tool designed to explore resources (individual, relational, communal and cultural) available to youth aged 11–15 years that develop resilience.
4. The Resilience Scale (RS-14) (Wagnild & Young, 1993) The RS-14, (14 items) a short measure of individual resilience with high reliability and validity, taking approximately 5 min.

Measures were selected based on the length and specific aspects of mental health difficulties experienced by the students. The Resilience scales selected were to measure the child's individual characteristics and the ecological aspects of resilience, and two were used to provide reliability and validity. Parents and students granted permission to collect data prior to the program being implemented with the students and an application to conduct ethical research in Catholic schools was granted from the Catholic education office of Victoria. Written permission was also granted from both parents and students to collate the data. Students were assigned a research code and no identifying information was retained in the data collation. The four measures were distributed to students 1 week prior to the commencement of the program, and again 6 and 12 months after the program was completed.

Case Study 2

Case Study 2 is a large Catholic Boys school (years 7–10) and coeducational senior school (years 11–12) in a middle class suburb west of Sydney. Subjects were 230 boys, aged 13 years from year 8 (second year of high school). Due to the size and popularity of the school it was the concern of the welfare staff that some boys appeared to be disconnected from learning in the early years, with some refusing to attend school due to social anxiety and behaviour problems. The focus on the school was to enhance a sense of belonging to the school community through various activities during their school life. The aim of the resilience program was to connect the students most at risk, to areas in their lives where there is the most potential for positive intentional relationships that build their resilience during the early high school years. As this was within the school context, relationships with teachers, peers and family as well as enhancing skill development in areas of strength was encouraged.

Method

1. The school counsellor in the school trained as an accredited trainer in the Resilience Doughnut. Accredited training involved attendance at a 2-day workshop and the assessment of teaching the Resilience Doughnut to three diverse groups of people.
2. The school counsellor conducted a staff development day to train the whole staff in the application of the framework within the school using the basic Resilience doughnut program as mentioned above.
3. At the beginning of the school year, the school counsellor and colleagues in the counselling department taught the Resilience Doughnut framework to all year 7 (12–13 years) students in their regular personal development classes over a 4-week period using the basic Resilience Doughnut program.
4. Students learnt to apply the framework to others using the case studies provided before completing an assessment of their own strengths using the Resilience

Doughnut on-line game. They were then encouraged to plan some activities linking their three strengths as suggested by the on-line game. At the end of the program they were treated to hot doughnuts from the local doughnut shop.

5. Parents were also invited to attend a parent information evening outlining the Resilience Doughnut framework using the basic program. The well-attended parent evening was facilitated by the school counsellor and staff in the counselling department.
6. At the beginning of subsequent years, the students were encouraged to log into their on-line Resilience Doughnut game and see if their strengths had changed from the previous year. During subsequent personal development classes the Resilience Doughnut framework was consistently referred to as a means to helping students through adversity.

Measures

The measures used were:

1. The Strength and Difficulties Questionnaire (SDQ), (Goodman, 1997) has 33 items with five subscales of emotional, conduct, hyperactivity and peer difficulties, and pro-social behaviours.
2. Multidimensional Anxiety Scale for Children, shortened version (MASC-10), (March, 1997).
3. The Children Depression Index, shortened version (CDI-10), (Kovacs, 2003).
4. The CYRM (Ungar, 2008).
5. The Resilience Scale (RS-14) (Wagnild & Young, 1993).

Parents and students granted permission to collect data prior to the program being implemented with the students and an application to conduct ethical research in Catholic schools was granted from the Catholic Education Office of New South Wales. Written permission was also granted from both parents and students to collate the data. Students were assigned a research code and no identifying information was retained in the data collation. The five measures were distributed to students 1 week prior to the commencement of the program, and again 12 and 24 months after the program was completed.

Case Study 3

Case Study 3 is a small state (NSW) high school with a high population of migrant families (90 %). Subjects were 325 boys aged 12–15 years (years 7–10). The school is part of a college with 4 campuses in Sydney of which one is a large senior campus. The focus on the school was to build literacy skills and confidence to achieve in the senior campus of the college.

Method

1. Two teachers attended an accredited training course in the use of the Resilience Doughnut framework in schools. A further staff member already trained in the use of the Resilience Doughnut in schools was assigned to the task of implementing the framework with staff, and students across the campus.
2. Staff from an external camping facility also attended a whole day of training in the use of the Resilience Doughnut framework in camp activities and wider communities. The external Camp facility was engaged to run camping programs across the year groups of the school.
3. The staff trained in the use of the Resilience Doughnut framework conducted teacher training for staff on a staff development day (a pupil-free day) using the basic Resilience Doughnut program. As the staff development day was held at the external camping facility the school staff were then able to practically demonstrate how to link their own strengths to raise their own resilience. For example, some staff selected close friends within their own faculty to join them in building a raft to race against other faculties, linking their education, peer and skill factors together. There was an emphasis on helping teachers and camping staff to use a common language that encouraged optimistic thinking (for example, positive encouragement when success was noted) and to plan future activities that connected individual strengths in the Resilience Doughnut referred to as "doughnut moments".
4. Students were then taught the Resilience Doughnut framework in regular personal development classes over a 4-week period where they learnt to apply the framework to students both similar and different to themselves. The format of these lessons followed the basic Resilience Doughnut program as outlined earlier. Students also completed their own assessment of their strengths using the Resilience Doughnut on-line game, and were encouraged to plan some activities that linked their three strengths.
5. Upon completion of the class teaching, each year group were engaged in a camping program using the external camping provider. Students were encouraged to undertake various challenges during the camp, which drew on their existing strengths of peers, teachers and family in order to build on their skills. Some of the younger students involved their fathers and older brothers in attempting their challenge during the camp. For example, one student invited his brother and father to help him attempt an abseiling exercise, linking his parent, family and skill factors. Another student invited two friends, and geography teacher to help build a grass cart to participate in the grass skiing exercise, linking his peer, education and skill factors.
6. After the camp, parents of the students attended a short presentation given by the principal of the school outlining the Resilience Doughnut framework, showing photos of the students using their three strengths to attempt their challenge activity at the camp. A smaller number of parents also attended an evening presentation at the school where the basic Resilience Doughnut program was presented using photo examples of the students linking their strengths at the camp. Parents

were then encouraged to think of ways of linking their children's strengths at home to create more positive intentional interactions that build resilience. For example, some parents suggested ways they could link their community, family and parent factors together by attending community events as a whole family and linking with other families. For example, planning a cricket match in the local park with other families in the neighbourhood, linking the parent, family and community factors.

Measures

The measures used were:

1. The SDQ (Goodman, 1997)
2. The Resilience Scale for Adolescents (READ), (Hjemdal, Friborg, Stiles, Martinussen, & Rosenvinge, 2006) has 28 items with five subscales of personal and social competence, structured style, awareness of social resources and family cohesion.

Due to the students' poor literacy skills and high rate of attention difficulties, only two measures were chosen as they were relatively easy to administer, used less complicated language and their subscale qualities or behavioural, emotional difficulties, pro-social behaviours, and internal and external aspects of resilience gave a comprehensive view of each students experience. Permission was granted through the State Education Research Approval Process (SERAP) within the Department of Education and Training NSW. Written permission was also granted from both parents and students to collate the data. Both measures were collected on-line and collated with the data from each student's on-line Resilience Doughnut game. Students were assigned a research code and no identifying information was retained in the data collation. The two measures were collected from students 1 week prior to the commencement of the program, and again 12 months after the program was completed.

Results

From the pre-test results, each measure was tested for internal consistency with the following Cronbach alpha coefficients (CYRM .89; SDQ .70; MASC-10 .72; CDI-S .75; RS .86; READ .93). The relationship between the Resilience measures was investigated using the Pearson's product–moment correlation coefficient. As expected the resilience measures CYRM and RS-14 were highly correlated in Case Study 1 .694, $p < .0005$ and Case Study 2 .696, $p < .0005$. There was a strong negative correlation for the measures of anxiety, and depression with the measures of resilience CYRM and CDI = −.536 $p < .0005$; CYRM and MASC-10 −.361 $p < .0005$; RS-14 and CDI −.490 $p < .0005$; RS-14 and MASC-10 −410 $p < .0005$. There was also a strong negative correlation for total difficulties (SDQ) and both measures of

Table 11.2 Correlation of subscales from measures Strength and Difficulties Questionnaire (SDQ) and the Resilience Scale for Adolescents (READ) Study 3

		Emotional symptoms	Conduct problems	Hyperactive Inattention	Peer problems	Pro-social	Total difficulties
Personal competence	Correlation	−0.309	−0.274	−0.315	−0.22	−0.367	−0.38
	Sig.	.000**	.000**	.000**	.000**	.000**	.000**
	N	316	310	309	310	311	309
Social competence	Correlation	−0.195	−0.134	−0.197	−0.21	0.461	−0.246
	Sig.	.001**	.019**	.000**	.000**	.000**	.000**
	N	310	310	309	309	311	308
Structured style	Correlation	−0.217	−0.2	−0.322	−0.113	0.368	−0.299
	Sig.	.000**	.000**	.000**	.047**	.000**	.000**
	N	313	313	312	312	314	311
Social resources	Correlation	−0.238	−0.24	−0.293	−0.322	0.458	−0.366
	Sig.	.000**	.000**	.000**	.000**	.000**	.000**
	N	315	315	314	314	316	313
Family cohesion	Correlation	−0.272	−0.281	−0.338	−0.224	0.37	−0.379
	Sig.	.000**	.000**	.000**	.000**	.000**	.000**
	N	313	313	312	312	314	311

**Correlation is significant at 0.01 level (two-tailed significance)

resilience CYRM −.607 $p<.0005$; RS-14 −.508 $p<.0005$. In Case Study 3, the Strength and Difficulty subscales (SDQ) showed a highly significant negative correlation between the Resilience for Adolescents (READ) subscales and positive correlations with the pro-social subscale (Table 11.2).

In each of the case studies the resilience measures (CYRM, RS14 and READ) were tested for main effects and one way repeated measures (ANOVA) were conducted to compare results from each of the times measured. Three groups were formed using 33 % cut points to divide the samples according to anxiety and depression scores (Study 1) and total difficulties experienced (SDQ; Studies 2 and 3). A one way between groups multivariate analysis of variance was performed to investigate differences between those students who reported low, average or high anxiety, depression or total difficulties in each of the studies.

Results Case Study 1

A one way repeated measures ANOVA was conducted to compare scores on the Resilience scale 14 (RS14) at time 1 (prior to the intervention), time 2 (6 months post-intervention) and time 3 (12 months follow up). There was no significant effect for time, Wilks Lambda = .97, $F(2, 150) = 1.86$, indicating non-significance. A one way repeated measures ANOVA was conducted to compare scores on the CYRM scale at times 1, 2 and 3. The means and standard deviations are presented in the Table 11.3.

Table 11.3 Study 1, descriptive statistics for CYRM scores at time 1, time 2 and time 3

Time period	*N*	Mean	SD
Time 1 (pre-intervention)	115	4.08	.431
Time 2 (6 month post-intervention)	115	4.16	.507
Time 3 (12 month follow up)	115	4.09	.450

Significant main effect for time: Wilks Lambda = .94, $F(2, 115) = 3.82$, $p < .05$, $\eta^2 = .063$
Pairwise comparisons from time 1 to time 2, $p < .05$, time 2 to time 3, $p = .145$

Table 11.4 Descriptive statistics of means for resilience scores (RS-14) for groups according to anxiety over time 1, time 2, and time 3

Time	Groups	Mean	SD	*N*
RS-14 pre-test	Low anxiety	5.67	.666	65
	Normal	5.31	.811	45
	High anxiety	5.11	.818	40
RA-14 post-test	Low anxiety	5.74	.624	65
	Normal	5.35	.911	45
	High anxiety	5.31	.799	40
RS-14 12 month	Low anxiety	5.59	.858	65
	Normal	5.46	.741	45
	High anxiety	5.41	.738	40

$F(3, 290) = 2.96$, $p < .01$; Wilks' Lambda = .888; partial $\eta^2 = .058$

There was a moderate significant result for time, Wilks Lambda = .94, $F(2, 115) = 3.82$, indicating significance at $p < .05$, multivariate partial $\eta^2 = .063$.

By dividing the sample according to their anxiety scores (MASC-10), three groups were formed. A one way between groups multivariate analysis of variance was performed to investigate differences in resilience (RS-14) between those students who initially reported low, average or high anxiety, and their resilience scores over time. Three dependent variables were used, resilience scores at time 1 (pre-test), time 2 (6 month post-test) and time 3 (12 month post-test). The independent variable was anxiety groups (low, average and high). Preliminary assumption testing was conducted to check for normality linearity, univariate and multivariate outliers, homogeneity of variance–covariance matrices and multi-collinearity, with no serious violations noted. There was a statistically significant difference between anxiety groups on the combined dependent variables, $F(3, 290) = 2.96$, $p < .01$; Wilks' Lambda = .888; partial $\eta^2 = .058$. When the results were considered separately, the only differences to reach statistical significance using a Bonferoni adjusted alpha level of .017 was the pre-test resilience scores (RS14), $F(2, 147) = 7.42$, $p = .001$, partial $\eta^2 = .092$; and the 6 month post-test resilience scores, $F(2, 147) = 5.27$, $p = .006$, partial $\eta^2 = .067$ (Table 11.4, Fig. 11.2). There was a similar result using the CYRM measure of resilience with pre-test scores $F(2, 111) = 4.49$, $p < .01$, partial $\eta^2 = .075$; and the 6 month post-test CYRM scores $F(2, 111) = 3.004$, $p < .05$, partial $\eta^2 = .051$. An inspection of the mean CYRM scores indicated that the low anxiety group increased their resilience scores from pre- to 6-month post-intervention but decreased at 12-month follow up. The normal and high anxiety

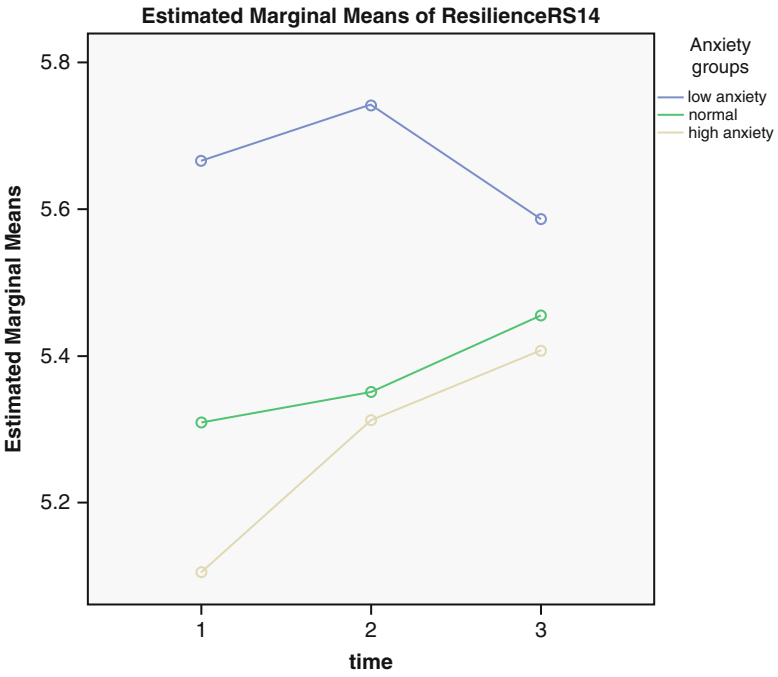

Fig. 11.2 Study 1, average scores of resilience (RS-14) for groups divided by level of anxiety pre, 6 months and 12 months post-intervention

groups both increased their resilience scores from pre- to 6 month and 12 month post-intervention, with the most change noted from pre- to 6 month post-test. The group that showed the most positive effect was the high anxiety group. Thus, in Case Study 1 ($N=40$) girls with anxiety levels above 33 % of the sample, showed an increase in their resilience scores (CYRM) 6 months post-intervention, which was again slightly increased in the following 12 months post-intervention (Table 11.5, Fig. 11.3).

Qualitative analysis gathered regarding the Resilience Doughnut factors was in the form of comments posted on each of the factors when the students were completing his or her on-line game and journal entries. Considering each student had goals of enhancing each of their three strengths in the Resilience Doughnut, the girls were asked to rank each separately and comment on the changes they had noticed. From the students different combinations of strength factors (there are 7 in total) 68.35 % of students reported 1, 2 or 3 factors had improved, 25.04 % reported they remained the same, while only 4.14 % reported they did not feel they were as strong as before the program. Considering during the program they had set a goal for each of the three strengths and were asked to design and undertake a strategy in order to link and further develop their strengths students individual comments are used to gather the general feel of the effectiveness of their strategy. The following codes indicate that each of the seven factors and comments are recorded following the codes, for some of the comments collected (Table 11.6).

Table 11.5 Descriptive statistics of means for resilience scores (CYRM) for groups according to Anxiety over time 1, time 2 and time 3

Time	Groups	Mean	SD	*N*
CYRM pre-test	Low anxiety	4.21	.354	50
	Normal	4.00	.498	38
	High anxiety	3.94	.413	26
CYRM post-test	Low anxiety	4.28	.416	50
	Normal	4.12	.490	38
	High anxiety	3.99	.645	26
CYRM 12 month	Low anxiety	4.09	.473	50
	Normal	4.13	.426	38
	High anxiety	4.03	.457	26

$F(2, 110) = 2.67$, $p < .073$; Wilks' Lambda = .954; partial $\eta^2 = .046$

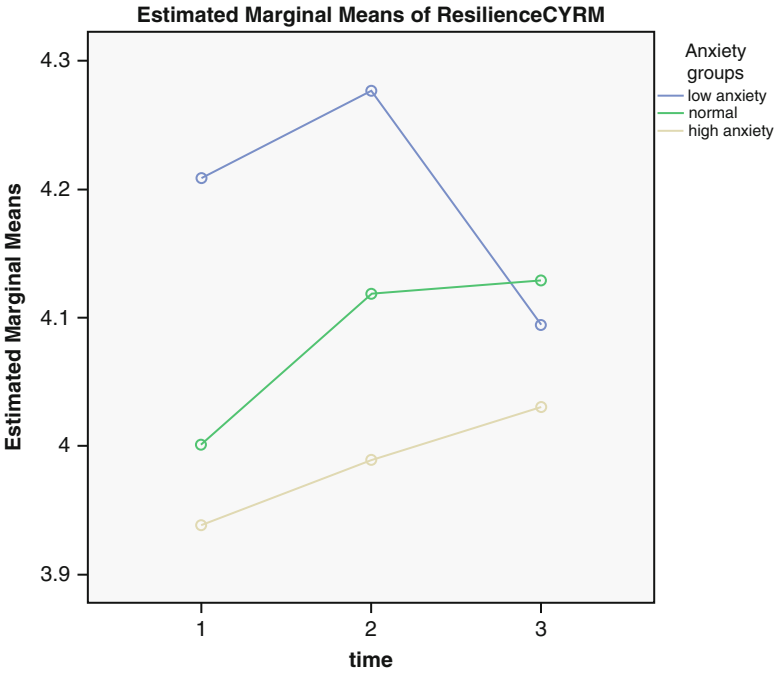

Fig. 11.3 Study 1, average scores of resilience (CYRM) for groups divided by level of anxiety pre, 6 months and 12 months post-intervention

Furthermore, in Study 1 the teachers introduced self-evaluations in the form of regular journaling and self-reflection to correspond with the independent learning program for term 4. Using a subjective scale (0–5) for self-evaluation, designed by the teachers, students were required to scale their perceived progress in a number of areas. Time management, task management, optimistic thinking, responsibility, catastrophic thinking, perseverance, help seeking, resilience doughnut strengths, self-confidence, parent relationships, school engagement, meeting new people, school connectedness. Students rated on a scale from 0 to 5 where 0 indicated they did not

Table 11.6 Study 1, self reports regarding their changes in Resilience Doughnut strengths

F—I have always been close to my family but we have become closer in ways I would never have imagined
P—I think the relationship with my dad and I has grow more. I feel I can tell him the problems I have.
S—I practiced, practiced and practiced
PE—I have become so much more confident in my friendship group
F—I have become so much closer to my older sister
P—I talk more positively with my mum and dad
F—Family gathering more often
C—I have worked more in my Community and become more proud
F—Got to know myself and my family better
PE—This term has really expanded my friendship groups
P—I really appreciate all they have done for me and I'm so grateful
S—I enjoyed having my own garden and having goals
E—I am now more aware that my education is a huge part of my life
E—I am starting to appreciate school more
M—I have learnt how to save and value my money and how to earn it, not just receive it
P—Learning how to push aside phones and ipods and talk to your parents
P—I strengthened this factor by doing more things with my parents
E—I learnt a lot of life skills but not a lot of educational skills
E—I learnt a new way of learning
PE—I have done more things with my friends now out of school
F—I see my Grandma more

F Family and Identity, *S* Skill, *C* Community, *P* Parents, *M* Money, *PE* Peers, *E* Education

Table 11.7 Perceived changes in areas of competence as rated by students

Area of competence	*N*	% No change	% Improved	% Decreased
Time management	217	13.82	78.34	7.38
Task management	217	25.34	65.43	7.37
Optimistic thinking	217	24.42	59.90	11.05
Responsibility	217	31.79	60.36	7.37
Catastrophic thinking	217	21.19	64.05	8.75
Perseverance	217	21.65	70.04	4.06
Help seeking	217	28.11	63.13	7.83
Develop three strengths in Resilience Doughnut	217	25.03	68.35	4.14
Self-confidence	217	21.19	76.49	2.30
Parent relationships	217	35.56	59.90	5.52
School engagement	217	33.17	62.21	4.14
Meeting new people	217	21.65	77.88	0
School connectedness	217	34.10	56.68	6.19
Overall changes	217	23.8	68.5	5.66

have competence in this area and 5 were they were extremely good in this area. Results of these scores were collated according to the percentage of students who did not report a change in the area of competence (% no change), reported a change (% improved) and reported a decrease in competence (% decreased) (Table 11.7).

Table 11.8 Study 2: descriptive statistics for CYRM scores at time 1, time 2 and time 3

Time period	*N*	Mean	SD
Time 1 (pre-intervention)	135	4.06	.446
Time 2 (12 month post-intervention)	135	4.20	.528
Time 3 (24 month follow up)	135	4.14	.422

Wilks Lambda = .88, $F(2, 133) = 11.17$, $p < .0005$, multivariate partial $\eta^2 = .146$
Pairwise comparisons time 1 to time 2, $p < .0005$, time 2 to time 3, $p = .08$, time 1 to time 3, $p < .05$

Overall the results of the perceived changes in competence, 68.5 % of year 8 students rated themselves more highly in the aspects of the program. The scores moved up the 6-point scale, on an average of +1.55 points. 5.66 % of the year 8 students thought their performance after the program was not as good as it was before the program, and their scores moved down the 6-point scale, on an average by −.87 points. 23.8 % of the year 8 students rated themselves at the same level before and after the program in the areas of competence. The area of competence recording the largest number of students reporting improvement was "meeting new people" where 77.8 % of the girls said they had improved by an average of 1.67 points on the scale.

Results Case Study 2

A one way repeated measures ANOVA was conducted to compare scores on the CYRM at time 1 (prior to the intervention), time 2 (12 months post-intervention) and time 3 (24 months follow up). The means and standard deviations are presented in Table 11.8. There was a significant effect for time, Wilks Lambda = .88, $F(2, 133) = 11.17$, $p < .0005$, multivariate partial $\eta^2 = .146$ indicating significance.

By dividing the sample according to their anxiety scores (MASC-10), three groups were formed. A one way between groups multivariate analysis of variance was performed to investigate differences between those students who initially reported low, average or high anxiety, and their resilience scores over time. Three dependent variables were used, resilience scores using the CYRM at time 1 (pre-test), time 2 (12 month post-test) and time 3 (24 month post-test). The independent variable was anxiety groups (low, average and high). Preliminary assumption testing was conducted with no serious violations noted. There was no statistically significant difference between anxiety groups on the combined dependent variables, $F(4, 260) = 2.03$, $p < .091$; Wilks' Lambda = .940; partial $\eta^2 = .03$. However, an inspection of the mean scores for each group according to the level of anxiety indicated that the low anxiety group increased their resilience scores from pre- to 12 month post-intervention but decreased at 24 month follow up. The normal and high anxiety groups both increased their resilience scores from pre- to 6 month and 12 month post-intervention, with the most change noted from pre- to 6 month post-test.

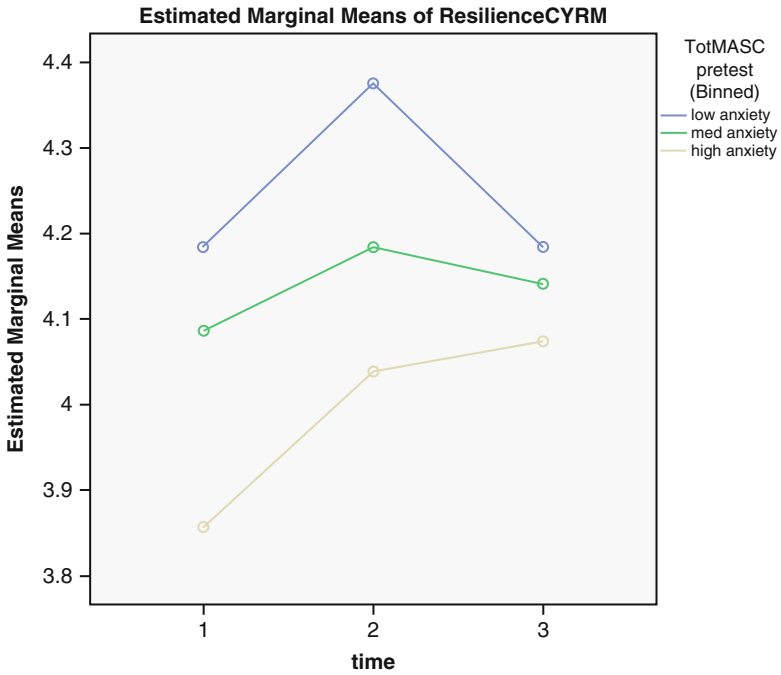

Fig. 11.4 Study 2, average scores of resilience (CYRM) for groups divided by level of anxiety pre, 12 months and 24 months post-intervention

Table 11.9 Study 2 descriptive statistics of means for resilience scores (CYRM) for groups according to anxiety over time 1, time 2 and time 3

Time	Groups	Mean	SD	*N*
CYRM pre-test	Low anxiety	4.18	.424	40
	Normal	4.09	.388	61
	High anxiety	3.86	.517	33
CYRM 12 months	Low anxiety	4.38	.503	40
	Normal	4.18	.448	61
	High anxiety	4.04	.643	33
CYRM 24 months	Low anxiety	4.18	.527	40
	Normal	4.14	.347	61
	High anxiety	4.07	.418	33

$F(4, 260) = 2.03$, $p < .091$; Wilks' Lambda = .940; partial $\eta^2 = .03$

The group that showed the most positive effect was the high anxiety group which was consistent with the findings from Case Study 1 (Fig. 11.4, Table 11.9).

The sample was then divided into three groups according to their total difficulties scores as determined by the SDQ. A one way between groups multivariate analysis of variance was performed to investigate differences between those students who initially reported low, average or high difficulties, and their resilience scores over time. Three dependent variables were used, resilience scores using the CYRM

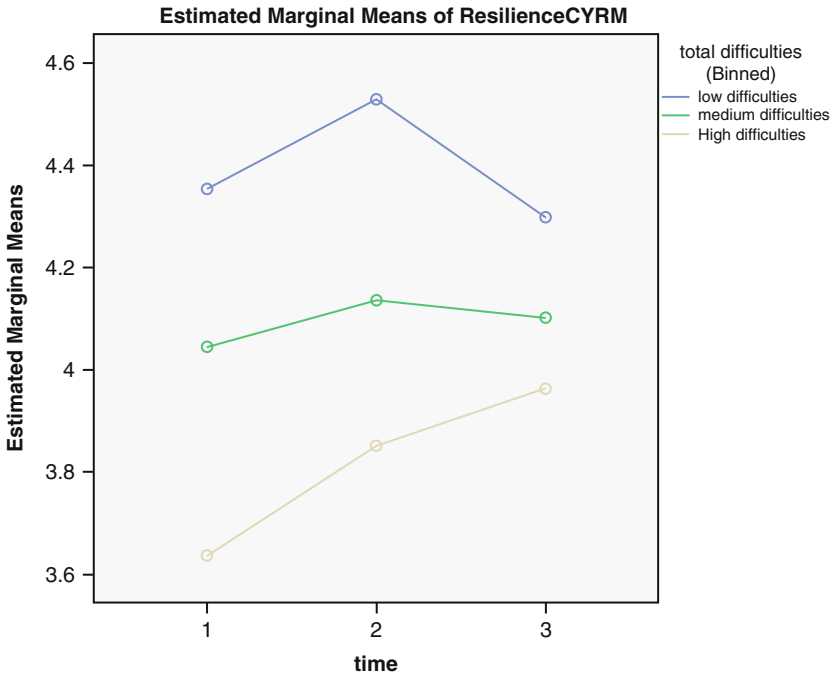

Fig. 11.5 Study 2, average scores of resilience (CYRM) for groups divided by levels of difficulties experienced pre, 6 months and 12 months post-intervention

at time 1 (pre-test), time 2 (12 month post-test) and time 3 (24 month post-test). The independent variable was difficulties (low, average and high). Preliminary assumption testing was conducted with no serious violations noted. There was a statistically significant difference between difficulty groups on the combined dependent variables, $F(4, 264) = 5.33$, $p < .0005$; Wilks' Lambda = .855; partial $\eta^2 = .075$. An inspection of the mean scores for each group according to the level of difficulties' indicated that the low difficulties group increased their resilience scores from pre- to 12-month post-intervention but decreased at 24 month follow up. The normal difficulties group did not show any change, however, the high difficulties group increased their resilience scores from pre- to 12 months and 24 month post-intervention, with the most change noted from pre- to 24 month post-test. This was again consistent with Case Study 1 where those experiencing the most difficulties had the most to gain, which was sustained 12 months later (Fig. 11.5, Table 11.10).

Qualitative data was collected on the Resilience Doughnut on-line game. The game collates the answers to the questions for each factor and gives the students an average of these scores. They are also given the opportunity to make comments on each of the factors. These comments are then collated in the form of a brief report back to the student outlining their strengths with suggestions of how to strengthen their factors even further. Some of the student comments are listed in Table 11.11.

Table 11.10 Study 2 descriptive statistics of means for resilience scores (CYRM) for groups according to difficulties experienced over time 1, time 2 and time 3

Time	Groups	Mean	SD	*N*
CYRM pre-test	Low difficulties	4.35	.424	45
	Normal	4.04	.388	60
	High difficulties	3.64	.517	30
CYRM 12 months	Low difficulties	4.53	.503	45
	Normal	4.14	.448	60
	High difficulties	3.85	.643	30
CYRM 24 months	Low difficulties	4.30	.527	45
	Normal	4.10	.347	60
	High difficulties	3.96	.418	30

$F(4, 264) = 5.33$, $p < .0005$; Wilks' Lambda = .855; partial $\eta^2 = .075$

Table 11.11 Selected comments from students in Case Study 2 on each of the factors on the Resilience Doughnut on-line game

Factor	Comments from the on-line Resilience Doughnut game
Family	*We look out for each other*; *We play sport*, *We are all connected*; *I like playing with my cousin*, *We always celebrate events together*; *I can be myself*; *my grandparents live close and we always meet up*.
Friends	*They are cool*; *We care for each other*; *they treat me like family*; *they are good company*; *they have a good sense of humour*
Skill	*I am good at motor bike riding*, *rugby*; *Swimming*; *Music*; *EVERYTHING*; *Cricket*.
Community	*We have nice neighbours and we have a pool*; *There are lots of kids in my street*; *It is safe for me to ride my bike*; *there is lots of space*; *I know everyone around me*
Money	*I can buy lots of stuff*; *I do chores to get money*, *I can help people with it*
Parents	*They love me*; *They understand everything I say and listen to me whenever I need them*; *My Dad is cool*; *They love me even though I waste their money*; *They are always there for me*; *They care for us*.
Education	*They are good and stuff*; *the teachers*; *I have lots of opportunities*; *It is a good learning environment*; *it is big*

In Case Study 2 a series of interviews were arranged with five parents from the cohort of students involved. Discussion questions were asked regarding the program. From the parents interviewed it appeared that parental involvement was encouraged in helping students to work out each student's three strong factors. One parent noted that their son explained the doughnut concept to the family over dinner one night, and this prompted her to seek further information. Another parent expressed her delight in the program in the school and referred to "doughnut-moments at home with the family, as times of great fun". These were times when the child's three areas of strength were linked during an event. The family had planned events on a regular basis that linked their children's three strengths. One parent noted she didn't know about the program until her son was explaining the "doughnut" to his brother in the car. Four of the five parents made comments regarding how they felt respected by the program because it highlighted the strengths in the parents, family and community factors. Each parent interviewed made the assumption that this was a regular program in the school and wanted it to continue.

Results Case study 3

Pre-test sample consisted of 350 students in school years 7–10 (aged 12–15 year old boys) in an all-boys high school in southern Sydney. Six months post-test sample consisted of 174 students from years 7 and 8 only (aged 12–13 years). So analysis was completed on students from years 7 and 8. A paired *T*-Test was conducted to assess the impact of the resilience intervention program on each of the READ subscales (personal competence, social resources, structured style, social competence and family cohesion) across two time periods.

There was no main effect over time. The sample was divided into three groups according to the levels of total difficulties scored from the SDQ (low, medium, and high difficulties). A one way repeated measure ANOVA indicated was a significant main effect between groups ($F = 16.956$, Sig. $< .0005$, $\eta = .200$) on their pre- and post-personal competence scores. Post hoc tests revealed a significant difference in personal competence between group scores over time (low to medium difficulties $p < .0005$, low to high difficulties $p < .0005$) and a non-significant difference in personal competence between the groups with medium to high difficulties over time. Further analysis of effect of intervention on personal competence for group 3($N = 24$) only, revealed a non-significant result ($p = .069$). However, inspection of the means revealed that 24 boys scoring higher levels of difficulties before the intervention experienced the most significant changes in personal competence, which was sustained after 12 months. The changes in this group took the high difficulties group to resemble personal competence scores of those within the middle range of difficulties. This was a similar finding to that of both studies 1 and 2, where the program has significant impact on those who were most needy (Fig. 11.6. Table 11.12).

Qualitative Data in Case Study 3 was restricted to the comments listed on the on-line Resilience Doughnut game with no further analysis of changes in these comment. Ninety per cent of the boys from this study were from Arabic or Chinese communities with English as a second language. The majority of the students were not born in Australia and their comments are reflective of their experience in their country of origin (Table 11.13).

In Study 3, the program used an external camping organisation trained in the use of the Resilience Doughnut. It was particularly evident that the boys had no experience in outdoor recreation and therefore needed to build their camping skills. The program was therefore tailored to each year group with graduated skill development over the 4 years. As this was a state public school with the least funding, collection of data was problematic as staff changed over the 2-year period. The funding for the Resilience Coach fell through and staff running the program did so in their own time. Consequently, the data collected only reflected the 12-month post-intervention with limited qualitative data collected. However, in observing the process of implementing the resilience Doughnut framework within the school, a number of factors appeared to be strengthened. Seven teachers were interviewed who were involved in the camping program. They reported feeling more connected to the parents of their students as a result of implementing the program. As parents were encouraged to

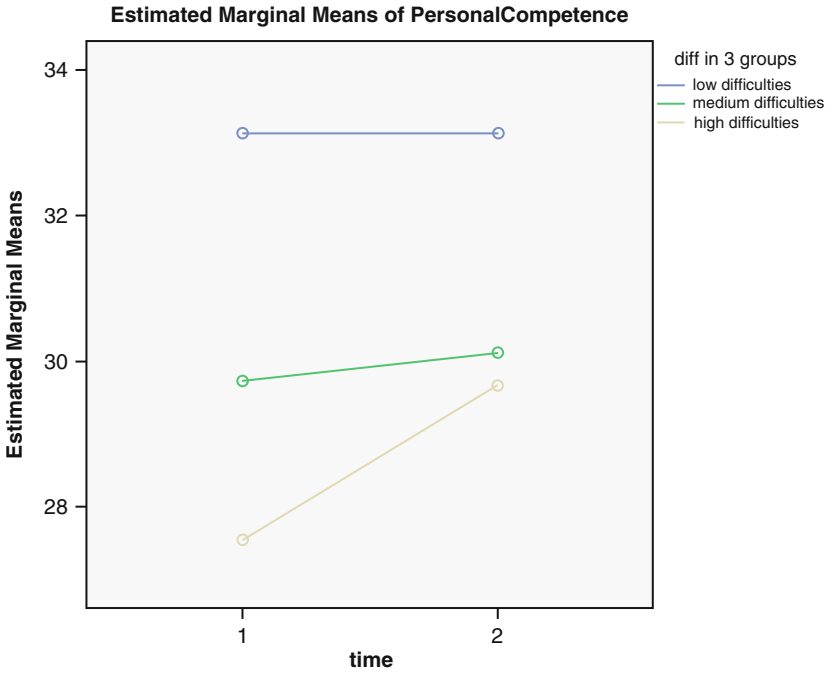

Fig. 11.6 Study 3 graph of the means for personal competence pre- (time 1) and post- (time 2) intervention for groups divided according to the difficulties experienced

Table 11.12 Study 3 Means for personal competence for groups according to difficulties experienced over time 1 (pre-intervention) and time 2 (post-intervention)

Time	Groups	Mean	SD	*N*
Personal competence pre-test	Low difficulties	33.13	3.85	71
	Normal	29.73	4.47	44
	High difficulties	27.54	5.95	24
Personal competence 12 months	Low difficulties	33.10	4.34	71
	Normal	30.11	5.13	44
	High difficulties	29.67	4.92	24

$F = 16.956$, Sig. $< .0005$, $\eta = .200$

attend activities in the school and the camping program, the parent teacher relationships appeared to be stronger. Some teachers noted the positive experience of tackling a challenging experience with their students and families. The camping skills acquired in the outdoor education program generated future possibilities for students to progress to more challenging tasks.

From the discussions with staff, suggestions arose to help implement the Resilience Doughnut framework into the school in the future. These suggestions included; 1. implementing an outdoor education program for all students within the

Table 11.13 Selected comments from students in Case Study 3 on each of the factors on the Resilience Doughnut on-line game

Factor	Comments from the on-line Resilience Doughnut game
Family	*We all cooperate together*; *We love each other*, *we fart*; *We fight but we still love each other*; *They are caring and fun*; *We always celebrate events together*; *They enjoy my company*; *I can talk to them about face-book problems*.
Friends	*We can keep friends*; *We watch each other's back we stick together*; *We play x-box*; *they stop me from being lonely*; *We laugh a lot*.
Skill	*I am good at playing sport*, *face-booking*; *Maths and English*; *Music*; *Athletics*; *Computer games*.
Community	*I live next to a park and pool and bus stop*; *The people here are good*; *I have friendly neighbours*; *The people are happy*; *The people around me care for me and my family*; *It is a safe place*.
Money	*I can save my money for things so my family doesn't have to buy them*; *I can work hard*; *I can buy things that I want*.
Parents	*They listen to me*; *They buy me stuff*; *They are loving and kind*; *My mum has really helped me*; *They love me*; *They let me do anything within reason*; *They care for us*.
Education	*It's a good school*; *It give me a good education*; *I have lots of friends and like the teachers*; *My school work and projects are fun*; *Everyone is kind*; *The library*; *It is a safe environment*.

school curriculum with graduated, skill based, challenge outdoor activities; 2. Integrating the Resilience Doughnut factors such as parents, teachers, community and family into the program and; 3. having a common language and approach to building resilience with parents, teachers, staff, camping staff, and students.

Discussion

Applying an intervention in a whole school aimed at raising resilience comes with a number of difficulties. One of these difficulties is in training willing staff to implement and sustain the programs while at the same time measuring the desired outcomes associated with resilience. In high schools, teachers are pressured to meet teaching and learning targets and the matter of student welfare is delegated to particular teachers who are given a 1–2 h allowance per week. This limited time results in a higher turnover of staff involved in programs resulting in poor sustainability and motivation by relieving staff that continue with the interventions. Furthermore, teaching staff often present with their own agenda's for intervention programs that are based on their subjective experiences with past and present students. While having measures to objectively evaluate the needs of the students is helpful, the time this takes can often be a de-motivating factor in engaging the staff to implement the programs. Data collection is often time taken away from classroom activities and as teaching staff often do not see the outcomes, their motivation is not sustained. These difficulties are invariably the reason behind many failed attempts at collecting evidence of the many interventions aimed at building resilience in high schools.

It is therefore important to seek out those teachers who are most enthusiastic and motivated to run the intervention program, and to work with them in helping them to own the process and the desired outcomes. The Case Studies used in this chapter each had different approaches to the resilience programs implemented in their schools, generated by the staff, which appeared to help motivate the people involved in the process. Each school used different measures, generated by the desired outcomes of the staff, which appeared to contribute to the cooperation of data collection.

A second difficulty lies in the relationships and communication between staff and parents during the high school years (Usrey, 2010). During high school years parent information evenings are often poorly attended thus limiting interventions that involve parents as well as teachers and students. As is evident in the programs run in primary schools, parent teacher communication is vital in supporting the development of resilience (Stewart & Sun, 2004). It is therefore important to consider alternative ways that intervention programs may build these relationships during the high school years. As apparent in each of the case studies, the involvement of parents in the programs, through camp attendance, parent information evenings and training events encouraged the partnership of teachers and parents in building resilience.

Luthar and Cicchetti (2000) give a number of recommendations when applying resilience interventions (Luthar & Cicchetti, 2000). It appears that the interventions based on the Resilience Doughnut framework in the three Case Studies apply each of these recommendations. Firstly they recommend that interventions must have a strong base in theory with a developmental focus, and research on the particular group being targeted should guide this intervention. The Resilience Doughnut is a model that has a strong developmental and ecological focus based on past research with populations that have coped well despite adversity. The population targeted in the three Case Studies were from normal populations of youth ages 12–16 years with varying needs and challenges according to each of the school environments. Research into these groups was generated by the schools requesting the intervention and was based on teacher's subjective observations of the developmental difficulties faced by the students. These difficulties were unique to each school and thus generated a different type of intervention program based on the Resilience Doughnut model.

Secondly, Luthar and Cicchetti (2000) recommend that intervention should be designed to capitalise on specific resources within particular populations, targeting the protective processes that operate across multiple levels of influence. Again, the Resilience Doughnut framework is a strength-based model where areas of strength are identified and intervention involves enhancing these strengths. Enhancing the existing strengths subsequently affects weaker contexts by either changing the individual's perspective or strengthening them. For example, a young person with low engagement in school may find that by playing soccer with their friends at the local park after school enhances their strengths of skill, peers and community. The subsequent affect of attending school more regularly to see their friends and practice playing soccer during lunch breaks strengthens their school engagement. Thus, the structured intervention of linking three areas of strength in the Resilience Doughnut framework seeks to have a purposeful positive injection of self-efficacy, self-esteem and awareness of support networks. This resiliency building activity sets in motion

the interaction of further resilience building opportunities by engaging additional external protective factors.

Thirdly, Luthar and Cicchetti (2000) note the need to be contextually relevant to the overall intervention aims as well as to the specific intervention strategies. Resilience building programs can be designed according to skill development and delivered in classroom situations; however, it is evident that the process of building resilience is in the context of relationships (Martin & Dowson, 2009). Thus, program implementation needs to be flexible enough to allow for the individuals involved to be able to interact using their own strengths, connections and styles of relating (Masten et al., 2008; Munford & Sanders, 2008). The Resilience Doughnut framework in guiding the delivery of resilience building programs used the strengths in each of the three schools. It was clear that the staff needed to have an understanding of the framework and the concepts behind activating the process of building resilience. Each school therefore trained staff in the use of the model and this training enabled the staff to implement a program tailored to fit the students' desired outcomes, in the contexts of relationships. For example, Case Study 1 used the cooperation of the whole school staff to mentor individual girls as they completed their challenge projects. Case Study 2 used the strengths of the counsellors in the school to teach staff, parents and students how to link Doughnut strengths. Case Study 3 used the strengths of family and community to run a camping program.

A fourth recommendation by Luthar and Cicchetti (2000) is that intervention efforts should aim at fostering services that eventually become self-sustaining. The ecological framework in the Resilience Doughnut, promotes sustainability by involving the contexts external to the school such as parents, community and family. While the initial set up of the program may be onerous, the flow on effect of empowering factors outside of the school context in the early stages of high school years can ensure a greater support network for the students and parents combined. Consequently, this greater support network promotes more opportunities for a flow on effect of strengths in areas other than the school. This was evident in Case Study 3, where involving the parents and an external camping program set up a system which was independent of the staff in the school. It was also evident in Case Study 1, where the teaching staff engaged in a full term of changes in their teaching style to include more interactive engagement with the students and Case Study 3, where the students engaged their parents in the process of building on their strengths. People must be engaged in the intervention for it to be sustainable and this means there must be some degree of flexibility for the participants involved in any programs or interventions used within any school system (Mallin, Walker, & Levin, 2013).

The final recommendations for intervention programs by Luthar and Cicchetti (2000) were for measuring the change using appropriate comparison groups with careful documentation and evaluation. As the intervention in each of the case studies involved a whole school or year group, it was predicted there would be a confounding or flow on effect on other factors in the student's lives, subsequently causing further changes. This whole school approach made it difficult to use a control group within the one school. Thus as each of the case studies used only pre- and post-intervention measures with no control group, the results need to be interpreted lightly.

As with all longitudinal research, changes can be due to a number of factors occurring in the lives of the subjects and not necessarily the intervention used. Therefore, it is hoped in future studies to use comparison groups from schools without the intervention. A comparison group with no intervention would determine the normal developmental pathways of those with high levels of anxiety and difficulties. From this we could establish the extent of the shift in resilience of these groups. It is therefore recommended that future enquiry be with a comparison group without intervention.

However, in the light of the restrictions of research, it is interesting to note the observed trends. From each of the studies it was evident that there was an increased benefit for those experiencing anxiety as measured by the MASC-10 and difficulties in emotional and social contexts as measured by the SDQ. As the groups were small and selected according to the higher 33 % of scores of anxiety and difficulties for the total sample, it is unlikely that all students in the high anxiety and high difficulty groups would fall in the clinical range of disorders in these categories. It is more likely that these students fall in the group described as the languishing group, who are two times more likely to develop episodes of major depressive episodes than those in the middle group and six times greater than those in the low anxiety and difficulties group (Keyes, 2002). In Study 1, and 2 there was a trend for students in the high anxiety and difficulties groups reaching the same level of resilience as those with low to average difficulties, which was sustained and slightly improved again 12 and 24 months later. As with Study 3 there were positive changes in personal competence for those students experiencing high levels of difficulties, while not statistical significance, there was a shift towards those within the normal range of difficulties.

It has been noted that individuals with symptoms of anxiety, depression and other mental health challenges, focusing on the protective factors that can enhance the individual's ability to thrive is of paramount importance. Many programs are designed to target students at risk and use skill based interventions to help increase resilience for those individual students, however, they dismiss the importance of building these skills while in the company of peers, teachers and family members who may be coping well (Mallin et al., 2013). The Resilience Doughnut framework delivered in the context of a whole school intervention appears to normalise the concept of building on the strengths, and creates a common language for teachers, peers, family, parents and students as they cope with adversity. This was evident in the reported experience of parents interviewed in Study 2 when they shared their experience of finding out about the Resilience Doughnut, and the teachers in Study 3 as they considered using a common language around strengths in the school and the camping program. The focus on linking each student's strongest factors also enables an individual to shift their focus away from their problems and deficits, towards their individual experiences, achievements and personal and environmental strengths (Climie, Mastoras, McCrimmon, & Schwean, 2013). For those suffering from depression and anxiety in particular, the positive experience has the potential to shift the adolescents emerging identity from one of helplessness to resourcefulness. Furthermore, the programs implemented in all three schools, targeted whole school groups, rather than focusing on the small groups at risk. It is highly probable that by having shared positive experiences aimed at connecting with others in the whole group potentiated a

positive flow-on effect with those experiencing anxiety and social difficulties. That is, students experiencing social and emotional difficulties may have benefitted by going through a program with those who manage well socially.

The use of multiple measures in these Case Studies gave further validity to the groups analysed. As programs based on the Resilience Doughnut framework aim at raising resilience by increasing self-efficacy (I can), self-esteem (I am), and knowledge of available resources (I have), the READ, with five subscales each related to aspects of resiliency was the most useful measure. The SDQ subscales gave a set of comprehensive profiles for each student, which enabled those students to be divided into groups according to difficulties experienced. Both measures were used on-line with the Resilience Doughnut computer program, took a minimal amount of time, and were relatively easy to collate the data. Thus, future enquiry could be used to track the changes of the students experiencing the most difficulties over time using just these two measures.

Each of the Case Studies therefore give valuable insight into the implementation of interventions based on the Resilience Doughnut framework. Future enquiry with comparison groups would benefit these studies further, alongside repeated measures of the longitudinal effect on the students, with particular focus on those falling in the languishing group (i.e. 33 % of sample with higher difficulties and anxiety scores). The aim therefore would be to establish the degree of change in the trajectory for these particular students from risk to resilience.

In conclusion, the interventions based on the Resilience Doughnut were able to be adapted to the culture within each school, which helped to motivate the staff involved, enabling a more sustainable system of change. The interventions also involved the wider network of supports around each student enabling a process of building resilience using multiple pathways. Further enquiry as to how these programs were implemented within the schools would be useful in replicating the process with other schools. As to the effectiveness of the interventions, a comparison group would establish the short-term effect, and longitudinal qualitative and quantitative measures would determine the full effect of a trajectory change with the highly anxious and difficult students. It is therefore hoped that measures will continue to be collected for each of these schools and a comparison group be established.

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Chapter 12
Resiliency Differences Between Youth in Community-Based and Residential Treatment Programs: An Exploratory Analysis

Linda S. Butler and Ellen Francis

Concepts of resiliency and resilience have become increasingly recognized as relevant to programing in a large, nonprofit, decentralized behavioral health agency with a multitude of programs serving infants through the elderly discussed in this chapter. Youth served by the agency demonstrate resiliency in a variety of ways. Youth in outpatient case management programs graduate high school despite deplorable home conditions. Preschool children with autism move on to mainstream public school kindergarten classes despite their serious disability. On the other hand, adverse circumstances are also associated with negative outcomes. Despite receiving community-based support services, some youth have parental guardianship terminated, and some youth leave residential treatment for psychiatric hospitalization.

Agency treatment has evolved along with the social science field to practice more positively based approaches to treatment and change. Terms and interventions such as assets and positive behavior supports are more widely used than ever before. Resiliency is increasingly being researched and the literature is gaining ground. In line with this trend, resiliency and resilience have become a paradigm that clinicians are continuing to identify as relevant to describing and informing treatment in their work across the agency. Resiliency and resilience have been recognized not only as positively focused concepts but also as powerful ways to describe the complexity of factors that emerge in the progression of the behavioral health needs of youth and their families.

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Resiliency and Resilience

Evolution and Definitions

Social and mental health services have historically been pathology-based and focused on improving diagnostically labeled youth with depression, anxiety, and behavioral disorders. Blum, McNeely, and Nonnemaker (2002) described a shift in perspective from biological factors to more social/behavioral factors that influence and affect health. The authors assert that although 30–40 years ago developmental markers for adolescents were sought, it became irrefutable that development does not ensue independent of environment (Bandura, 1979; Bronfenbrenner, 1977, 1986; Harter, 1987). In recent years, the field of social science has evolved to include risk and protective factors of both an individual's constitution and their environment as critical to understanding mental health and therapeutic change.

Models of mental health wrestle with the dissonance between a person's level of suffering and their capacity for psychological growth (Zautra, Hall, & Murray, 2008). Zautra et al. poignantly describe the human reality that behavioral science has yet to harness and master:

> Yet we all know people and communities who appear perfectly adjusted to their circumstances but who have not the capacity to plan for themselves. Their ship is still in the harbour. We know of people who carry full diagnoses of illness, even mental illness, who yet show spark and wit and perseverance remarkable for even the healthiest of us. The absence of illness and pain is no guarantee of a good life. (p. 44)

Nevertheless these same authors and others assert that a healthy environment with organized physical surrounds and resources for basic needs are necessary for healthy psychological functioning. This is easily recognizable in children who experience consistently nurturing parenting, routine activities, and interesting stimulation. Likewise, resilient communities and societies function according to thoughtful laws and governances and provide social connectedness and opportunities for psychological growth of their residents. Similarly, research supports the predictable interplay between individuals and their environments. In a large sample of public school youth, Donnon, Hammond, and Charles (2003) assessed intrinsic (personal attributes) and extrinsic (environmental) strengths and found that strengths in both contributed to less risky behavior and healthier lives.

More complexity emerges with the notion that resiliency as a personal attribute is not fixed, but modifiable (Prince-Embury, 2013; Tignor & Prince-Embury, 2013). Resiliency has become understood as a set of behaviors that constitute a state, rather than a personality-like trait that is resistant to change. Features of resiliency include cognitive, mental, spiritual, physical, and behavioral areas (Kumpfer, 1999) that serve as a buffer between an individual and risk (Wolin & Wolin, 1993). While resilience is distinguished as the interplay of these personal features and environment, resiliency defines an individual's adaptation amid a context of adversity (Luthar, Cicchetti, & Becker, 2000). The multiple elements that comprise various conceptualizations of resiliency, such as mastery, relatedness, and resources (Prince-Embury, 2007),

or control, commitment, and perception of change (Maddi, 1997), are dynamic and contribute to the plasticity of one's resiliency. Thus resiliency is susceptible to external influences, yet the term resiliency does not attempt to measure this interaction as the term resilience does. Instead, resiliency presents a snapshot or measurement of the status of one's traits at an identified time, allowing for change in these personal attributes due to environmental events.

Universality of the Resilience Mechanism

The U.S. Department of Health and Human Services (2012) reported that in 2011 approximately 3 % of children in the United States were abused or neglected and that 21 % of children over 9 years suffered from a diagnosable mental or addictive disorder. Social science studies from multiple perspectives are largely focused on resilience in individuals overcoming severe adversity. Acuity (e.g., death of a parent) and chronicity (e.g., prolonged abuse or neglect) of adversity, mental health diagnoses, and protective custody placement are common factors in many studies of resilient youth. Multiple authors have presented and used different resilience-based models of intervention to examine youth and families' adjustment to adversity.

Hawkins-Rodgers (2007) and Lietz (2004) presented residential care models of treatment to build resiliency in youth. Both incorporated resiliency research constructs in their development of new intervention models to address presenting challenges in care. Hawkins-Rodgers described case examples that showed increased stability and security in the residential environment via relationship building and therapeutic teaching of responses to challenges. Similarly, Lietz developed a novel treatment framework that combined purposefully teaching youth to overcome challenges in their environment, within a structure informed by social learning theory. This resilience-focused, strength-enhancement in the context of environmental circumstances introduced an asset-based approach to treatment and recognized the importance of building upon youth capacities and potential.

Walsh (2003) described a family resilience framework for clinicians to use with youth and families that is rooted in recovery potential and targets areas of family belief systems, organizational patterns, and communication. The model is intended to help families overcome adversity by reducing their stress and vulnerability in high-risk situations. Similarly, Leve, Fisher, and Chamberlain (2009) used a resiliency framework to examine outcomes of multiple families engaged in a Multidimensional Treatment Foster Care (MTFC) program. They examined how the resiliency mechanisms of MTFC positively impacted social, school, and behavioral functioning of youth exposed to adverse experiences. MTFC programs' four key intervention components are enhancing foster parent skills; promoting healthy biological parenting practices; strengthening youth social skills and academic support; and coordinating service system communication and use. These interventions triggered resiliency mechanisms of supportive interpersonal relations and adaptive youth functioning that in turn resulted in improved youth and family resilience in

juvenile justice and foster care youth. Resilience was defined by youth social competence, behavioral adjustment, school success, and reduced caregiver stress.

When applying a resilience perspective to the study of adolescent substance abuse treatment, Latimer, Newcomb, Winters, and Stinchfield (2000) found that measurements of psychosocial risk and protective factors had varying predictive ability of subsequent substance abuse severity. Pretreatment risk factors predicted posttreatment substance abuse, but pretreatment protection did not predict the same abuse severity. Woodier (2011) showed through two case studies how resiliency-building teaching practices focused on self-esteem, self-efficacy, and self-awareness improved identification of inner strengths and moral decision-making for youth with adverse social backgrounds and school challenges.

These models of intervention-targeted youth suffering from psychiatric diagnoses or abusive or neglectful environments suggest that resilient youth emerge in spite of the insults they have endured. A landmark longitudinal study by Werner (1993) and Werner and Smith (1992) revealed this encouraging finding by following nearly 700 multicultural children at risk and living in poverty in Hawaii. One-third of those children developed into competent, caring young adults, and all but two maintained successful lives decades later.

Leve et al.'s (2009) three-stage conceptual model of change begins with intervention, proceeds to resiliency mechanism activation, and ends with outcomes. This model offers a platform for a resiliency building experience that is universal for all youth. The universality of resilience stems from the models' resilience activation mechanism that involves individual growth, adaptation, and the complex dynamic between individual and environment.

Although the majority of literature addresses differing interventions for treatment of the most troubled youth, the mechanism of change for overcoming adversity, regardless of acuity or chronicity, appears to be the same for all youth. This mechanism is recognized by Masten (2001) who indicated that, "The great surprise of resilience research is the ordinariness of the phenomena. Resilience appears to be a common phenomenon that results in most cases from the operation of basic human adaptational systems" (p. 227). Thus both youth who have been victimized by bullying, or diagnosed with a psychiatric disorder, still experience the same resiliency-building activation mechanism regardless of the type or severity of their experiences.

It is this recognition of the common experience of resilience that advocates for studies that reach out to a broader group of youth beyond those suffering from the most damaging histories of adversity. Until recently, resilience and resiliency research was concentrated on children who experienced severe adversity or distress. The potential impact of applying research-based resilience models to not only prevent conditions from either developing or worsening but to also improve educational and treatment environments is enormous.

The field has begun to perceive resilience through a broader lens that includes challenges and obstacles commonly encountered in everyday life (Blum et al., 2002; Martin & Marsh, 2008; Nickolite & Doll, 2008). Blum indicates that more than 75 % of all adolescent mortality is associated with social and behavioral elements and argues that focusing on them in a proactive manner will increase both teenage and subsequent adult health. This more expansive view has emerged in literature

related to positive psychology, positive behavioral supports, and early screenings. While diagnoses remain critically important to identify and label specific areas of clinical concern and inform treatment, the field has evolved to promote the strengthening of positive attributes and qualities as opposed to concentrating on problem-based labels and identifiers (Masten, 2001).

Martin and Marsh (2008) studied youth resilience or academic buoyancy in relation to school experiences. They highlighted the individual's facility for allowing daily disturbances to pass by innocuously and their ability to bounce back from setbacks. Youth who most effectively rolled with the punches at school and managed the stresses of homework possessed higher self-efficacy, greater engagement with school and learning, increased positive relationships with teachers, and lower schoolwork anxiety levels.

Opportunity to Make a Difference

This study was prompted by the recognition that resiliency and resilience are powerful constructs in defining youth adjustment to life events, regardless of the severity or intensity of adversity. The notion of examining resiliency profiles and applying responsive, preventative intervention, was attractive not only to programs that treat clinically compromised youth but also to programs that serve youth who do not present with acute or chronic issues yet are at risk of developing them. This aligns with Prince-Embury's (2010) assertion that universal mental health screening is important for identifying vulnerability in non-clinical groups of youth to help plan services accordingly.

This chapter presents a study that examined differences in internal resiliency traits of youth in two different environments: those in residential treatment with psychiatric diagnoses and those with a lesser degree of defined behavioral and psychiatric impairment that participated in community-based programs. The specific question explored was whether youth participating in the agency's least restrictive programs (i.e., community-based, non-clinical after-school programs) differed in their resiliency profiles compared to youth receiving clinical treatment in the agency's most restrictive, intensive programs (i.e., residential treatment). The study's hypothesis was that resiliency profiles of youth with psychiatric disorders would show more problematic features than youth who were representative of a typical community sample, but that both samples would show a need for resiliency-targeted intervention, thus informing service providers about areas of need for programing.

Program and Participant Profiles

Spurwink is a nationally accredited, nonprofit organization in Maine that provides a broad range of behavioral health and educational services to children, adolescents, adults, and families. Spurwink programs are widely varied in their restrictiveness

based on living environment and therapeutic treatment levels. Programs range from the least restrictive services of recreational, after-school community-youth centers to more restrictive services including case management to the most restrictive service of residential treatment where youth are engaged in treatment programing and therapeutic schedules. Data was collected from five different Spurwink programs and grouped into two categories based on similarity of restrictiveness and referral/recruitment source. Program type 1 consisted of four non-clinical, community-based programs for youth attending public schools: one offered during school for students in alternative education classrooms as an education complement, and three offered after school. Community-based programs are not considered outpatient programs, but do differ from one another in their referral sources and amount of structured focus in programing. Although the goals of each program differed (from boat building, to non-electronic gaming, to raising educational aspirations), elements that strengthen resiliency were organically embedded within program activities. Program type 2 was a residential treatment service for youth with psychiatric diagnoses.

Type 1: Community-Based Programs

Rural After School (Rural General): This after-school program serves grades 6–8 in a rural area comprised of low- to moderate-income working families. This Rural General program was designed to raise the educational and economic aspirations of area middle school youth. As a youth-driven community program that seeks to build young people's self-confidence, it offers youth an opportunity to build positive relationships, learn new skills, and take responsibility for their actions in a safe, engaging space staffed with caring adults. The program is within walking distance from the middle school, allowing easy access for youth to choose to attend. Program activities align with school curricula, promote community values, and develop youth assets. Core program areas include academic enrichment; science, technology, engineering, and math; youth leadership and service learning; health and wellness; and arts and culture.

Urban After School (Urban General): This after-school program serves middle and high school students in an urban area. The program is a strengths-based community youth development service program that works to increase developmental assets, community engagement, and academic success for youth. This Urban General program is the primary provider of after-school programing in the area and youth who attend are typically at-risk, disadvantaged, and low-performing students. The program offers academic support, mentoring, truancy prevention, arts instruction, recreation, wellness activities, and prevocational services in collaboration with the school department, the city, and numerous other local partners.

Rural Game After School (Rural Game): This is a year-round, non-electronic gaming program that serves primarily low-income high school students in a rural area. The program provides educational, nutritional, and recreational services. Games

often have themes and structured character roles for creative reenactment of historical events. The purpose of the Rural Game program is to help young people who tend to have deficient social skills become fully integrated citizens of the community and reach their full potential. In addition, the program encourages educational improvement for students who are failing or in danger of dropping out of school. Youth discover the program by word-of-mouth and informal community referrals.

Boat Building During School (Boat Building): This is a during-school wooden boat building program in an urban area that works with public schools and social organizations. The program works to provide a complement to education for students in grades 9–12 who are at risk for dropping out or need alternative learning environments. Semester and year-long boat building and rowing programs provide positive direction by encouraging skill-building, confidence, and personal and community responsibility.

Type 2: Residential Treatment Program

Adolescent Residential Treatment: A residential treatment program that serves children and adolescents diagnosed with severe emotional and behavioral disturbances, intellectual disabilities, developmental delays, and autism spectrum disorders. Residential services comprise community-based homes in a semi-urban area that provide youth with individualized, multidisciplinary professional treatment in a structured therapeutic environment. Youth and their families receive treatment from a team of professionals that includes psychiatry, psychology, nursing, social work, occupational therapy and speech therapy personnel, and therapeutic couples and staff. The research-based residential treatment model uses several intervention frameworks and models (ARC, Blaustein & Kinniburgh, 2005; CARE, Holden, 2009; SCERTS©, Prizant, Wetherby, Rubin, Laurent, & Rydell, 2006), multiple types of standardized treatment approaches (e.g., cognitive behavior therapy, applied behavioral analysis, motivational interviewing) and is developmentally focused, relationship based, family involved, competence centered, trauma informed, and ecologically oriented. Youth are referred to residential treatment primarily due to physical aggression in the community and at home.

Methods

Participants

Youth enrolled in the five different programs associated with Spurwink comprised the sample for the current analysis. The 232 youth included 88 females and 144 males ranging from 9 to 19 years old, with a median age of 14 years and an interquartile

Table 12.1 Program participant demographics

	Separated	Grouped	Age	Gender	
Program type	*N*	*N*	ME (IQR)	Female	Male
1. Community	–	168	14 (10)	69 (41 %)	99 (59 %)
Rural general[a]	32	–	11 (3)	20 (62.5 %)	12 (37.5 %)
Urban general[b]	11	–	15 (10)	5 (45.5 %)	6 (54.5 %)
Rural game[b]	44	–	14 (7)	7 (16 %)	37 (84 %)
Boat building[c]	81	–	14 (7)	37 (45 %)	44 (54 %)
2. Residential[d]	64	64	15 (10)	19 (30 %)	45 (70 %)
Total	232	232		88	144

Note: *ME* Median; Referral source = [a]Self, [b]Community/Self, [c]Public School District, [d]Department of Health and Human Services/Clinicians

Table 12.2 Resiliency Scales for Children and Adolescents (Prince-Embury, 2007)

	Profile scales			Index scales	
	Mastery	Relatedness	Reactivity	Resource	Vulnerability
Sub-scales	*Optimism* *Self-efficacy* *Adaptability*	*Trust* *Support* *Comfort* *Tolerance*	*Sensitivity* *Recovery* *Impairment*	(Mastery score + Relatedness score)/2	(Reactivity score – Resource score)

range of 10 years. Residential youth had experienced varying lengths of treatment, ranging from 1 month to 4 years. Demographics of youth and descriptives of programs are in Table 12.1. The ethnic distribution of the sample reflects agency demographics of 89 % Caucasian, 4 % African American, 2 % two or more ethnicities, 2 % Hispanic/Latino/Latina, and the remaining 3 % American Indian/Alaska native or Asian (non-pacific islander).

Instrument

The Resiliency Scales for Children and Adolescents (RSCA) (Prince-Embury, 2007) is a 64-item self-report measure of personal attributes related to an individual's strengths and difficulties. Responses are ranked on a 5-point Likert-scale ranging from 0 (never) to 4 (almost always). Strengths are measured by a Mastery Profile Scale and a Relatedness Profile Scale, and difficulties are measured by a Reactivity Profile Scale. Ten subscales comprise the three Profile Scales. Two Indexes are derived from the three Profile Scales and indicate respondents' Resources and Vulnerabilities. Profile Scales, subscales, and Index Scales are detailed in Table 12.2. RSCA psychometric properties for the Mastery, Relatedness and Reactivity Profile Scale Scores include coefficient alphas of ≥.85 and test–retest reliabilities of ≥.70 (Prince-Embury, 2007).

Procedure

Data from all programs were collected at different times from the different programs over a 5-year span beginning in 2007. The RSCA were used in programs for treatment and service outcome tracking, not as part of a formalized study. Residential treatment clinicians administered the RSCA to youth who were cognitively and behaviorally able to complete the assessment at the time of testing. Staff in community-based programs administered assessments to youth who were in attendance and agreed to participate. Most assessments were administered at the outset of program participation (within the first 3 months); however 76 % ($n=31$) of residential treatment youth completed the RSCA 3 months after admission. Assessments were completed by youth either alone or while in a group. The responses were transferred from paper assessments to a Microsoft Excel spreadsheet to calculate *T* scores for the Mastery (MAS), Relatedness (REL), and Reactivity (REA) Profile Scales, as well as the Resource Index (RI) and the Vulnerability Index (VI) scores. Data from all assessments scored in Microsoft Excel were compiled into SPSS v21.

Analysis

Grouped Community Programs Compared to Residential Treatment. An initial independent samples *t*-test was used to determine if RSCA Profile Scale and Index *T* scores differed for the two types of programs (grouped community programs and Residential Treatment).

Separated Community Programs Compared to Residential Treatment. Based on *t*-test results, a secondary in-depth analysis for significantly different Profile Scale and Index *T* scores was conducted for separate community programs compared to Residential Treatment. One of the community programs (Urban General) was dropped from the separated program analyses due to its small sample size and violation of homogeneity of variance.

Differences in REA and VI *T* scores for the separated community programs and Residential Treatment were examined with one-way analysis of variance (ANOVA) and post hoc Dunnett *t*-tests with Residential Treatment used as the reference group. One-tailed post hoc tests were used in support of the hypothesis that Residential Treatment youth would report higher REA and VI *T* scores than community program youth.

In addition, a multivariate analysis of covariance (MANCOVA) was used to examine the main effect of age and gender on REA subscale (Sensitivity, Recovery, Impairment) scores. After excluding age and gender as covariates due to nonsignificance, a follow-up multiple analysis of variance (MANOVA) examined associations between the REA subscales and programs. Post hoc Dunnett *t*-tests were used for two of the subscales and a Dunnett T_3 test was used for the Recovery subscale due to a violation of the homogeneity of variance assumption.

Table 12.3 Ranking of profile scales and index scores

	Mastery, relatedness, and reactivity	Resources and vulnerability
	T-score range	*T*-score range
High	≥60	≥60
Above average	56–59	55–59
Average	46–55	46–54
Below average	41–45	41–44
Low	≤40	≤40

Ancillary: Vulnerability and Program Type. Finally, a logistic regression model was used to determine the likelihood that the number of vulnerable youth was related to program type. The selection criterion for above average and high VI *T* scores was scores of 55 or greater, as determined by clinical rankings of Index *T* scores based on norming samples (Prince-Embury, 2007) (Table 12.3).

Results

Grouped

The independent-samples *t*-test for the grouped analysis was found to be significant for one of the three Profile Scales. REA *T* scores were found to be significantly higher for Residential youth than for community youth, $t(230) = -5.34$, $p < .0005$. No significant Residential and community group differences were found for the remaining Profile Scale *T* scores (MAS and REL).

Of the two Index Scores (VI and RI), Residential Treatment youth reported significantly higher VI *T* scores than the grouped community program youth, $t(231) = -2.96$, $p = .004$. Because the VI score is derived from the RI Index score and REA Profile Scale, and only Reactivity profiles show significant differences between the Residential and community programs, we can infer that the increased vulnerability of the Residential youth is due to their increased reactivity. This finding indicates that youth in residential treatment are more vulnerable than community youth because they report increased reactivity within the resiliency paradigm.

Separated

The ANOVA conducted to determine the differences between the separate community programs and residential treatment showed a significant difference in REA *T* scores ($F(3, 216) = 12.647$, $p < .0005$). As expected, an additional ANOVA showed significant differences between programs' VI *T* scores as well ($F(3, 217) = 5.203$, $p = .002$) since reactivity contributes to vulnerability.

Reactivity Scores. Using Residential Treatment as a reference group, the post hoc Dunnett *t*-test analysis showed significant differences between type of program and

Table 12.4 Community program differences in REA and VI *T* scores compared with residential treatment

Scale/index	MD	SE	*N*	95 % CI upper bound
Reactivity				
Rural general	−11.23**	2.22	32	−6.72
Rural game	−05.43*	3.31	44	−1.36
Boat building	−8.55**	2.00	81	−5.11
Vulnerability				
Rural general	−09.10**	2.34	32	−4.22
Rural game	−03.31	2.10	44	1.06
Boat building	−04.02*	1.78	81	−0.30

MD mean difference, *CI* confidence interval
*$p < .05$. **$p < .001$

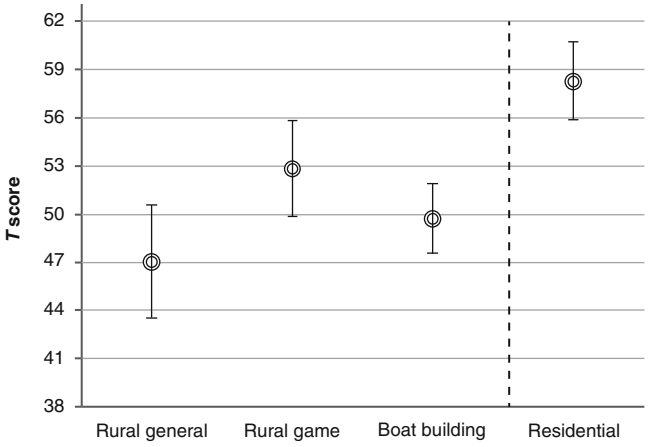

Fig. 12.1 Estimated marginal means and 95 % CIs of REA *T* scores

REA *T* scores (Table 12.4). Youth in each of the three community-based programs reported significantly lower reactivity when compared to youth receiving residential treatment (Fig. 12.1). Youth in each community-based program reported being less reactive when upset than youth in residential treatment.

Vulnerability Scores. The results of the post hoc Dunnett *t*-test for VI *T* scores indicated a significant difference in the mean scores of two community-based programs (Rural General and Boat Building) when compared to the Residential Treatment group (Table 12.4). Youth in both community programs showed less vulnerability, or greater balance between emotional reactivity and resources, than youth in residential treatment.

Reactivity Profile Subscale Scores. Results of the MANOVA exploring REA subscale (Sensitivity, Recovery, Impairment) score differences between the three programs showed a significant multivariate effect ($F(9, 521.0) = 5.15$, $p < .0005$; Wilk's $\Lambda = 0.813$, partial $\eta^2 = .067$). Specific subscale significance levels were $p < .0005$ (Sensitivity), $p = .003$ (Recovery), and $p < .0005$ (Impairment).

Table 12.5 Community program differences in REA subscale scores compared with residential treatment

			95 % CI	95 % CI	
Subscale	MD	SE	Upper bound	Upper bound	Lower bound
Sensitivity					
Rural general	−2.26**	.645	−0.92	–	–
Rural game	−1.49*	.581	−0.28	–	–
Boat building	−1.82**	.492	−0.79	–	–
Recovery					
Rural general	1.77*	.563	–	.26	3.28
Rural game	0.20	.602	–	−1.42	1.82
Boat building	1.38*	.503	–	0.04	2.73
Impairment					
Rural general	−3.84**	.681	−2.42	–	–
Rural game	−1.91*	.618	−0.63	–	–
Boat building	−2.87**	.519	−1.78	–	–

MD mean difference; *CI* confidence interval
*$p < .05$. **$p < .001$

Table 12.6 Descriptive statistics for profile scales and indexes for grouped and separated analyses

	Profile scales			Indexes	
	MAS	REL	REA	RES	VUL
Program	*M* (SD)			*M* (SD)	
Rural general	52.8 (12.43)	50.3 (10.07)	47.0 (7.93)	51.7 (11.36)	47.2 (09.88)
Urban general	53.4 (22.97)	42.3 (19.54)	48.7 (15.10)	47.4 (22.25)	50.9 (17.29)
Rural game	49.3 (11.24)	46.0 (13.50)	52.8 (10.22)	47.4 (12.88)	53.0 (11.55)
Boat building	46.3 (9.92)	45.0 (11.20)	49.7 (9.91)	45.7 (10.55)	52.3 (9.65)
Residential	47.5 (11.80)	45.9 (11.60)	58.3 (10.38)	46.9 (12.25)	56.3 (11.64)

MAS mastery, *REL* relatedness, *REA* reactivity, *RES* resources, *VUL* vulnerability

The post hoc examination of the associations between the separate programs and REA subscale scores revealed significant differences between the three community-based programs compared to residential treatment (Table 12.5). All community-based program youth showed significantly lower Sensitivity and Impairment subscale scores than youth in residential treatment. Likewise, Recovery subscale scores for youth in all community-based programs, except Rural Game, were significantly greater than scores for Residential Treatment youth.

Score Variability and Youth Commonality between Programs

Examination of mean score standard deviations of all Profile Scale and Index *T* scores yielded overlap of scores on Mastery, Relatedness, and Reactivity Profile Scales across all programs, indicating similarity of individual youth among programs (Table 12.6). More specifically, despite the significant difference in mean REA

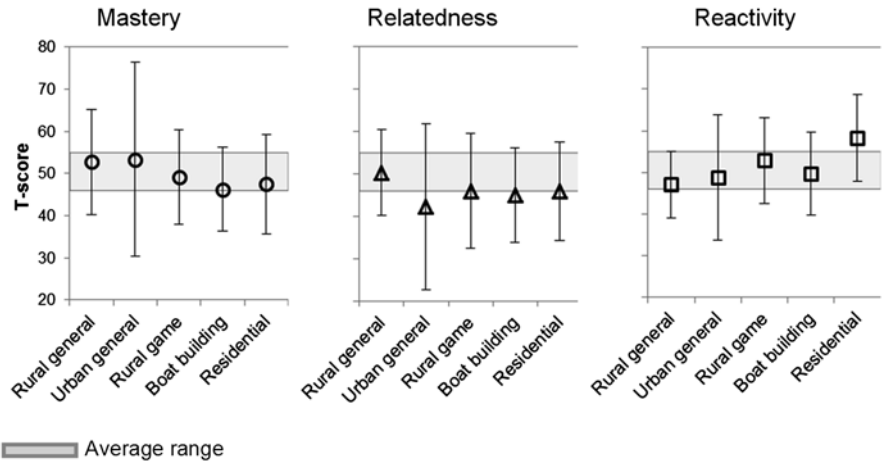

Fig. 12.2 Mean RSCA profile scale scores plus and minus one standard deviation

T scores between residential and community-based youth, some youth in all of the community-based programs (except Rural General) reported atypical range REA *T* scores that overlapped with Residential youth scores (see Table 12.3 for score cutoff levels). The overlap of youth scores in problematic ranges is illustrated in Fig. 12.2.

Vulnerability and Program Type

Program type, as characterized by referral source and amount of structured focus, was a significant predictor of an increase in the percentage of vulnerable youth who attended or participated in programing ($p = .009$, CI = [1.07, 1.58], OR = 1.298). The number of vulnerable youth increased by 30 % for each program along a continuum (Fig. 12.3).

Discussion

When examining resiliency in youth using the RSCA, REA was the only Profile Scale that showed significantly higher scores for youth in residential treatment than youth in the community-based program comparison group. Reactivity maintained its robust significance for the residential youth group even when compared to three individual community-based youth programs. This is congruent with clinical observation that youth admitted to residential treatment struggle primarily with issues of severe behavioral regulation, particularly aggression. These are youth whose emotional dysregulation and associated behaviors are at an acuity level that preclude

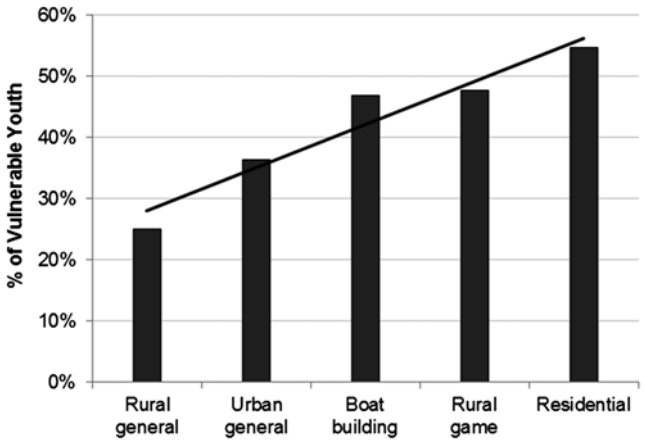

Fig. 12.3 Distribution of above average and high vulnerability index scores by program

care in their own homes due to safety issues requiring increased supervision and therapeutic behavioral and medication intervention.

Likewise, the increased vulnerability of youth in residential treatment was not surprising since Reactivity is a component of the Vulnerability Index (VI). The finding that youth in community-based programs were not as impaired or as easily provoked and more capable of recovering when distressed further emphasizes the gap between VI Score components (Reactivity and Resources) for residential youth. It can be clinically useful to know that vulnerable residential youth may be helped most by therapeutic attention to the components of reactivity. These components are responsive to a number of interventions designed to mitigate reaction to provocation, hasten rebounding, and foster functional choices when emotionally aroused. In concert with these interventions, medication management could additionally increase the likelihood of reducing reactivity.

Youth in all of the community-based programs, except rural game, showed lower reactivity and vulnerability than youth in residential treatment. Reactivity in Rural Game youth was low enough to be significantly different than Residential Treatment youth, but not low enough for Game youth to be significantly less vulnerable. The lack of difference in vulnerability is most likely due to both Rural Game and Residential Treatment youth reporting similar deficits in their inability to return quickly to a regulated state once agitated (as measured by the REA subscale of Recovery).

Across all of the Reactivity subscales (Sensitivity, Recovery, Impairment), youth in community-based programs showed significantly different scores than youth in residential treatment (except for the Rural Game program in the area of Recovery). This indicates approximately equal contributions by all subscales to the differences observed in reactivity. In other words, all reactivity factors are similarly fortifying the less reactive community-based youth as compared to Residential Treatment youth.

Overall, since most of the youth in community-based programs were significantly different than youth in residential treatment, we can assume that most youth, regardless

of community-based program type, have significantly higher resiliency than youth in residential treatment. This finding parallels the clinical distinction between youth that live in the community versus youth that reside in a treatment program. Thus, clinical interventions focused on lessening emotional triggers, and reducing the speed and degree of negative emotional arousal and impairment, such as cognitive skill building, may yield positive outcomes for the most compromised youth.

While significant group differences in Reactivity offer global clinical guidelines, it is noteworthy that despite no significant group differences between residential and community-based youth on the remaining Profile Scales (MAS, REL), some youth in all community-based programs reported problematic scores. Some youth in the community-based programs demonstrated profiles in the problematic range and some Residential Treatment youth reported scores in the average or above average range. This corresponds with non-clinical youth profiles reported in other studies that used the RSCA (Kumar, Steer, & Bulab, 2010; Prince-Embury & Steer, 2010), and indicates that there are youth across all types of environments that manifest more or less resiliency and need individual attention and intervention.

Thus, despite group RSCA Profile and Index scores close to or in the average range, individual youth levels of resiliency within all programs warrant attention. All programs seek to maintain current healthy resiliency levels for all youth and do so by offering ongoing resilience-based activities to the structure of daily programing. The resiliency deficits of youth in residential treatment as determined by RSCA scores can be used to guide clinicians and staff in applying the pertinent features of resilience-based intervention based on baseline or changing resiliency profiles. Likewise, while the purpose of the community-based programs is to operate as preventative services, individual youth with RSCA scores in atypical ranges can be identified and supported accordingly. Staff can be alerted to specific youth needs and tailored resilience-based program activities can be offered. In this manner, outcomes of youth can be captured in terms of improvement in aspects of resiliency.

Finally, the ancillary finding that the percentage of vulnerable youth increased in a predictable manner according to program type raises an interesting discussion. The program with the least percentage of vulnerable youth, Rural General, is completely self-referred and provides a wide range of activities. Alternatively, Residential Treatment, the most restrictive and prescribed program for non-self-referred youth, serves the greatest percentage of vulnerable youth. Programs serving a more moderate percentage of vulnerable youth (Urban General, Boat Building, Rural Game) could be characterized as falling along this spectrum according to referral source and specificity of programing. The Urban General program is self-referred and provides a variety of activities. The Boat Building and Rural Game programs distinguish themselves as serving youth who are school referred for educational/behavioral challenges and self-selected youth with social skill deficits. Both of these programs provide a focused, topic-specific type of programing (boat building and non-electronic gaming). It is not unreasonable, then, to assert that more focused, structured programing along a continuum serve more youth with challenging resiliency profiles, specifically higher vulnerability. The ability to predict an increase in vulnerable youth according to particular programatic features, such as

referral source, program structure, and program focus, could be a useful way for community-based services to think about optimally helping youth who participate in them. If social service providers had an increased awareness of their particular program features, they could more readily identify youth who may need resiliency-strengthening support.

Limitations and Future Study

The current study was exploratory in nature and further research is needed in order to replicate the findings. The sample was from one state in New England and studies with youth from other geographical regions are important to pursue. This study included more males than females and so findings may be more applicable to male youth. Demographic differences within groups were not explored in this study due to small program sample sizes. In addition, while the current study discusses resiliency areas where youth could benefit from intervention, the authors do not attempt to provide insight into the effectiveness of any particular program studied.

Further study of these agency programs could include comparison of resiliency scale profiles between the community-based programs. This could provide further insight into the nuances of youth resiliency differences relative to program services. The use of the RSCA with differing samples of youth has helped quantify the clinical observation that reactivity is an area of struggle for youth in residential treatment. Further study of reactivity change due to intervention effectiveness could then be performed, using either the RSCA or another more reactivity-focused measurement tool. The finding that, as a group, youth in community-based programs reported RSCA scores in a typical range provides an opportunity for future studies to examine maintenance of this healthy level of resiliency. Likewise, the study of change in individual youth scores within these programs could provide intervention effectiveness data if programs examined resiliency at a more individual youth level.

Future studies could examine differences in youth resiliency between youth with high and low scores in community-based programs. Once deficit areas in groups are identified, studies examining the effectiveness of interventions for increasing resiliency and decreasing noted challenges would be welcomed by clinicians and community program providers. Also, studies of differences in age-based resiliency profiles could inform more tailored, developmentally sensitive treatment.

Conclusion

It is now widely accepted that a healthy environment with organized physical surroundings and resources is just as important as the absence of illness and pain in determining a healthy life. Interventions focused on resiliency-specific areas for youth in residential treatment are easily acknowledged. As the field of resilience shifts its

attention to include a broader range of youth, there is greater opportunity for professionals and semiprofessionals in educational, after-school, and community-based programs to be recognized for their impact on youth (Zautra et al., 2008). This may serve as a preventative mechanism for youth who have not yet demonstrated risky or clinically diagnosed behaviors, but who are at risk of developing them.

Luthar et al.'s (2000) review of core resiliency literature found evidence of the significance of close, supportive adult relationships, effective schools, and positive community involvement in the most successful youth. Brooks and Goldstein (2008) indicated that the significance of the teacher–student relationships may be undervalued. Likewise, this relationship-based approach to supporting optimal youth growth is noted by Rink and Tricker's (2005) conclusion that protective factors, including resiliency-savvy adults in the lives of youth, are critical. The importance of adults recognizing the features of youth resiliency in need of nurturing is essential to community-based, as well as residential treatment programs, to optimally serve and treat youth. Pivotal studies, including Werner (1993) and Werner and Smith (1992), showed that even youth deemed at risk could develop into confident, competent, and caring adults who were notably influenced by an individual who supported, believed in, and encouraged them. If community-based program teachers, mentors, and personnel could offer compensatory strategies to mitigate those areas of resiliency most in need, youth could excel in their socioemotional development.

Whether conceived of as "strengthening the human spirit" (p. 1) (Grotberg, 1995) or fortifying individual skills, self-regulation, and relationships, attention to youth resiliency in focused ways across a broad spectrum of environments is undoubtedly beneficial to youth functioning and, subsequently, to society. Factors related to supporting community-based program youth are an important area for further research as community resources are becoming increasingly essential for aiding youth with emerging or transient challenges.

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Chapter 13
Resiliency in Youth Who Have Been Exposed to Violence

Nancy Ghali

Statement of the Problem

Juvenile delinquency is a major concern for many communities. An estimated 2.2 million juveniles under the age of 18 were arrested in the United States in 2006 (Snyder, 2007). Juveniles accounted for 17 % of all violent arrests and 26 % of all property crime in the United States during that year (Snyder, 2007). According to Farrington (2005), juveniles who are involved in illegal acts such as stealing and vandalism, and demonstrated conduct problems such as resistance to authority and physical aggression, were more likely to exhibit antisocial behaviors such as crime, violence, excessive drinking and drug-taking, a poor employment record, marital breakups, child neglect, reckless driving, and failure to pay debts as adults. Being exposed to adverse conditions increases the likelihood that a juvenile will experience strain and therefore engage in delinquent behavior (Agnew, 1985).

The prevalence and related negative effects of juvenile delinquency have generated a great deal of interest in researching this population (Farrington, 2005; Hanlon, Bateman, Simon, O'Grady, & Carswell, 2004; Hart, O'Toole, Price-Sharps, & Shaffer, 2007) in an effort to reduce delinquency and recidivism rates. Unfortunately, many of the attempts to treat chronic delinquency and childhood antisocial behavior have been shown to be ineffective (Kazdin, 1987) suggesting that prevention may be more effective than treatment in reducing juvenile delinquency rates (Yoshikawa, 1994). Youth who engage in predelinquent activity at an early age are more likely to engage in later delinquent activity (Hanlon et al., 2004). Therefore, it may prove more effective to identify youth who are at risk due to environmental stressors and provide preventative interventions before they exhibit aggressive behavior or conduct problems.

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The purpose of this study is to explore the relationship between resiliency factors, such as sense of mastery, relatedness, and emotional reactivity, and conduct problems in youth who have been exposed to violence in a general population. By exploring these resiliency factors in youth who have been exposed to violence, we gain vital information that can be generalized to at risk youth in a preventative form that may keep them from engaging in delinquent behaviors. Children who have been identified as being exposed to risk factors can be placed in programs which provide them with resiliency skills to help them better cope with the stressors they are experiencing prior to the onset of behavioral or emotional difficulties.

Risk Factors

Risk factors are defined as the individual characteristics, interpersonal interactions or environmental conditions that increase the likelihood of poor developmental outcomes (Crosnoe, Erickson, & Dornbusch, 2002). Environmental pressures, such as disrupted families, antisocial parents, large family size, low family income, antisocial peers, schools with high delinquency rates, and high crime neighborhoods, which produce strain for youth, are considered to be risk factors for youth engaging in delinquent behavior (Farrington, 2005). Poor parental monitoring was found to be the biggest predictor of delinquency among the child rearing factors. In addition, physically abused children were more likely to become violent. Children who witness parental violence and conflict are also more likely to engage in antisocial behavior (Farrington, 2005). Parental separation and single parent homes were predictors of conduct disorders (Farrington, 2005). The connection between family disruption and delinquency is thought to be due to an interference with attachment to the parental figures, the effect of multiple stressors such as parental conflict, parental loss, reduced economic resources, and poor parental monitoring (Farrington, 2005).

Other familial factors, such as parental involvement in criminal activity and large family size, were also found to increase the likelihood of youth's involvement in delinquency. In addition to familial factors, youth who come from low SES backgrounds are more likely to engage in antisocial behavior (Farrington, 2005). Other mitigating factors, such as having delinquent peers, can be a strong predictor of delinquency (Farrington, 2005). Delinquent youth were also found to be more likely to attend schools with high delinquency rates, be mistrustful of teachers and students, have a low commitment to school, and attend a school with unclear and inconsistent rules (Farrington, 2005). Most offenders also came from inner-city neighborhoods that were deteriorated, disorganized, and had high mobility rates (Farrington, 2005).

Researchers (Fergusson & Lynskey, 1996; Smokowski, Mann, Reynolds, & Fraser, 2004) have found risk factors to be cumulative. Cumulative family risk significantly increased the chances of juvenile court involvement and decreased the

probability of completing high school (Smokowski et al., 2004). The more risk factors that youth are exposed to, the more likely they will exhibit externalizing behaviors. For example, Fergusson and Lynskey (1996) found that one or two family stressors seemed to make little difference, but several created high odds for serious behavior problems.

Resiliency Factors

The construct of resiliency provides a framework for understanding why some children and adolescents who are exposed to high risk do not develop negative health and social outcomes (Ostaszewski & Zimmerman, 2006). McKnight and Loper (2002) defined resiliency as the successful coping with or the overcoming of risk and adversity and the development of competence in the face of severe stress and hardship. They viewed resiliency as not eradicating risk but providing the individual with the ability to compensate for risk successfully (McKnight & Loper, 2002). Youth who feel strong connections to school or family are more likely to conform to conventional behaviors and are less likely to engage in acting out behavior (Herrenkohl, Tajima, Whitney, & Huang, 2005). Social support, religiosity, a positive view of the future, positive peer group, positive school climate, and involvement in extracurricular activities were all found to be associated with less risky and antisocial behavior in physically abused adolescents (Perkins & Jones, 2004).

There have been many studies exploring the relationship between risk and resiliency factors (Hart et al., 2007; Harvey, 2007; McKnight & Loper, 2002; Ostaszewski & Zimmerman, 2006). However, few studies have explored the resiliency factors that moderate the risk factor of exposure to violence. Even fewer studies have explored the resiliency factors of youth who have been exposed to violence in a general population (Ozer & Weinstein, 2004). The study described in this chapter focused on the presence of specific resiliency factors in a general population to understand how they might keep at risk adolescents from manifesting conduct problems. Understanding which resiliency factors are related to fewer conduct problems provides information which could be utilized in the development of effective prevention and treatment programs which may prevent youth from engaging in delinquent behavior in the first place and deter youth from continuing to commit delinquent acts in the future.

The purpose of the study was to examine the relationship between exposure to violence and resiliency (i.e., sense of mastery, relatedness to parents, teachers, and peers, and emotional reactivity), and externalizing behaviors in a sample of high school students. It was hypothesized that rule-breaking behavior and aggressive behavior would be positively related to the *Direct Exposure to Violence Scale* and the *Emotional Reactivity Scale* and negatively related to the *Sense of Mastery Scale*, the *Sense of Relatedness Scale*, the *Connectedness to Friends Scale*, the *Connectedness to Parents Scale*, and the *Connectedness to Teachers Scale*.

Review of the Literature

Many researchers have studied the common characteristics of youth who exhibit externalizing behaviors and found several recurring themes including individual characteristics (e.g., low sense of mastery and high emotional reactivity) as well as environmental factors (e.g., exposure to violence, Fagan, Van Horn, Hawkins, & Arthur, 2007; Gardner, Dishion, & Connell, 2008; Hanlon et al., 2004). Youth who demonstrate poor academic achievement and learning disabilities were more likely to exhibit externalizing behaviors (Hart et al., 2007). Children and adolescents who are exposed to adverse environments such as poverty or exposure to violence are also more likely to have conduct problems (Hawkins et al., 2000; Sullivan, Farrell, Kliewer, Vulin-Reynolds, & Valois, 2007).

Risk Factors

Factors such as being raised in poverty have been found to contribute to a greater likelihood of involvement in crime and violence (Hawkins et al., 2000). Exposure to violence and exposure to drug dealing were identified as increasing the likelihood of youth engaging in externalizing behaviors (Roberts, 2004). Abuse, both physical and sexual, is another form of victimization that increases the likelihood that youth will engage in delinquent behaviors (McShane & Williams, 2007). Maltreated children were significantly more likely to become involved in a delinquency and engaged in delinquent activity more frequently (Kelley, Thornberry, & Smith, 1997).

Exposure to Violence

A strong predictor of externalizing behaviors in youth is exposure to violence (Sullivan et al., 2007). Youth who have been exposed to violence; both in the forms of crime and abuse are more likely to exhibit externalizing behaviors. A positive relationship between exposure to violence and community violence and aggressive behavior has also been demonstrated (Moon, Blurton, & Mccluskey, 2008; Sullivan et al., 2007). Specifically, continual exposure to violence was found to be predictive of serious delinquency among youth. The self-perpetuating nature of the problem is demonstrated by a significant body of findings that individuals who were victims of crime were also the perpetrators of crime (Menard, 2002). Violence victimization during adolescence was found to be a risk factor for most of the adult problem outcomes such as violent crime, further victimization, domestic violence both victimization and perpetration, violent and property crime perpetration, and problem drug use (Menard, 2002).

Exposure to violence at home or elsewhere increases a child's risk for involvement in violent behavior later in life (Hawkins et al., 2000). Children who witness

violence at home are more likely to become violent themselves (Hart et al., 2007). Many boys who had been maltreated engaged in some later form of delinquency, aggression, fighting, and serious physical violence (Herrenkohl et al., 2005). Witnessing violence and victimization is significantly associated with drug use and aggression (Sullivan et al., 2007).

Resiliency Factors

Not all youth who are exposed to violence turn to a life of crime. In fact most youth are able to thrive despite being exposed to numerous risk factors and are able to avoid delinquency (Wolkow & Ferguson, 2001). Many children who experience adversity grow up to become well-adjusted, healthy adults (Wolkow & Ferguson, 2001). Only a minority of youth who have been exposed to risk factors such as victimization develop severe and long lasting symptoms. Most youth who experience adversity recover with the help of a supportive environment (Harvey, 2007). Researchers (Luthar, 1991; McGee, 2002; Smokowski et al., 2004) became interested in understanding the difference between youth who succumb to risk factors and those who demonstrate a degree of resiliency. Smokowski et al. (2004) examined data collected during the Chicago Longitudinal Study which included 1,539 inner-city youth from birth to adulthood and found that most of the youth in this study came from impoverished neighborhoods and faced many risk factors. They found the resiliency factors were stronger predictors of adolescent outcomes than risk factors. The results of their analysis indicated that children who received early childhood interventions through the Child Parent Center preschool had lower rates of adolescent depression, fewer juvenile court petitions, and had a 36 % higher probability of completing high school or GED than other youth in the sample (Smokowski et al., 2004). The Child Parent Center located in Chicago serves as a preschool and a family support service center for economically and academically disadvantaged children. The program offers academic support to the students as well as a parent program which encourages parental involvement in the school by requiring parents to participate weekly in classroom activities. There is also an outreach component of the program which includes home visits, parent training, and health and nutrition services (Smokowski et al., 2004). This study supports the claim that enhancing social competence of poor children and their families serves as a resiliency factor buffering against the development of negative outcomes.

Previous research has also suggested that having a strong commitment to school, having parents and peers who do not endorse antisocial behavior, and participating in religious activities to be resiliency factors which decreased the youth's involvement in delinquent behavior or violence (Herrenkohl et al., 2005). Increasing the number of resiliency factors resulted in lower risk for antisocial behaviors (Herrenkohl et al., 2005).

The current chapter reports research that examined the relationship between direct exposure to violence and rule-breaking behavior/aggressive behavior. Also

examined was the association of rule-breaking and aggressive behavior and the potentially moderating effects of factors of resilience. Specifically, it was hypothesized that rule-breaking behavior and aggressive behavior would be positively related to the *Direct Exposure to Violence Scale* and the *Emotional Reactivity Scale*. It was also hypothesized that rule-breaking and aggressive behavior would be negatively related to the *Sense of Mastery Scale*, the *Sense of Relatedness Scale*, the *Connectedness to Friends Scale*, the *Connectedness to Parents Scale*, and the *Connectedness to Teachers Scale*.

Method

Measures

Demographic Questionnaire. Demographic data were collected using a questionnaire designed for this study. Items included in the questionnaire were age, gender, grade level, current grade point average, race/ethnicity, parents' marital status, involvement in fights, school suspensions and expulsions, substance abuse, and arrests for juvenile offenses.

Children's Report of Exposure to Violence. The *Children's Report of Exposure to Violence* (CREV; Cooley, Turner, & Beidel, 1995) is a self-report instrument that measures the lifetime exposure to violence either directly by being a victim or witness of violence or indirectly through the report of violence by others (i.e., Has your child ever been robbed or mugged?) or by media exposure through television or film exposure (i.e., How many times has your child seen somebody being robbed or mugged on TV or in the movies?) in children between the ages of 9 and 15 years. The types of violence assessed include being chased or threatened, beaten up, robbed or mugged, shot, stabbed or killed.

The Resiliency Scales for Children and Adolescents. The Resiliency Scales of Children and Adolescents (RSCA; Prince-Embury, 2007) is a self-report inventory that measures the strengths and resiliency of youth between the ages of 9 and 18. The RSCA includes three scales: *Sense of Mastery* scale (MAS) which measures optimism about life and one's own competence, *Sense of Relatedness* scale (REL) which measures perceived access to support and comfort with others, and *Emotional Reactivity* scale (REA) which measures the youths intensity of reaction and length of time it takes to recover from emotional upset (Prince-Embury, 2007).

Hemmingway Measure of Adolescent Connectedness. The Hemmingway Measure of Adolescent Connectedness (Karcher, 2003) is a self-report instrument that measures the quality of a youth's relationships in three dimensions including self, others, and society for youth in grades 6 through 12. The measure consists of ten subscales which fall into three dimensions of connectivity, connectedness to self, connectedness to others including parents, friends, teachers, and siblings, and connectedness to society including schools and neighborhoods (Karcher, 2005).

The Child Behavior Checklist-Youth Self-Report. The *Child Behavior Checklist* (Achenbach & Rescorla, 2001) is a self-report inventory that measures emotional and behavioral problems in youth between the ages of 11 and 18 years old. The first section of the measure, the *Competence scales* contain seven questions that assess competence in three areas, activities participation, social competence, and school performance. The second half of the measure is the *Problem Checklist* that includes 112 items that make up 8 core *Syndrome Scales* including *Anxious/Depressed*, *Withdrawn/Depressed*, *Somatic Complaints*, *Social Problems*, *Thought Problems*, *Attention Problems*, *Rule-Breaking Behavior*, and *Aggressive Behavior*.

Procedures

The sample included 150 students in the12th grade in a suburban high school in the Midwest. Students ranged in age from 14 to 18 years old with a mean age of 15.9 years ($SD = 0.90$). The mean grade point average was 3.49. The school was located in an inner ring suburb of a midsize city and included approximately 2,000 students.

A letter explaining the study along with a consent form for the parents and an assent form for the youth was sent home with all students in 9th, 10th, 11th, and 12th grade enrolled in Stress Management and Health classes. The letters were distributed by the classroom teacher and students were asked to return the signed consent forms to the teacher. The consent forms were collected by the teacher over a 2-week period. All students who returned the consent form completed the measures during class time. The students were administered the *Youth Self Report*, *The Resiliency Scales for Children and Adolescents*, the *Children's Report of Exposure to Violence*, the *Hemmingway Measure of Adolescent Connectedness,* and a demographic questionnaire. The measures were counterbalanced in order to avoid order effect. Bivariate correlational analysis and multivariate canonical correlation analysis were used to analyze the data.

Results

Preliminary Analysis

The results of the preliminary analysis including the means and standard deviations for each of the predictor and criterion variables as well as the bivariate correlation coefficients and reliability coefficients for all of the scales are summarized in Table 13.1. The reliability coefficients, reported on the diagonal are adequate to excellent suggesting adequate internal reliability of the variable measures employed. Bivariate correlation analysis revealed that all but five of the correlations were significant at the $p < .05$ level or better. Examination of the correlation matrix displayed

Table 13.1 Means, standard deviations, Pearson product–moment correlation coefficients, and reliability coefficients of rule-breaking behavior, aggressive behavior, exposure to violence, resiliency, and connectedness subscales ($N = 150$)

Scale	*M*	SD	1	2	3	4	5	6	7	8	9
Criterion measures											
1. Rule-breaking behavior ($n = 145$)	7.3	5.3	.86								
2. Aggressive behavior ($n = 143$)	8.8	6.2	.74**	.80							
Predictor measures											
3. Exposure to violence ($n = 150$)	36.6	24.9	.40**	.39**	.95						
4. Sense of mastery ($n = 144$)	55.5	12.6	−.38**	−.43**	−.22**	.92					
5. Relatedness ($n = 138$)	68.2	15.3	−.18*	−.28**	−.12	.75**	.94				
6. Emotional reactivity ($n = 139$)	28.6	13.8	.54**	.67**	.38**	−.49**	−.36**	.92			
7. Connectedness to friends ($n = 150$)	23.4	4.5	.14	.39**	−.03	.23**	.51**	.05	.76		
8. Connectedness to parents ($n = 150$)	18.2	4.5	−.46**	−.39**	−.23**	.58**	.46**	−.40**	.15	.83	
9. Connectedness to teachers ($n = 150$)	21.9	5.1	−.44**	−.36**	−.17*	.53**	.38**	−.27**	.13	.57**	.78

Coefficient α is on the diagonal
M mean, *SD* standard deviation
*$p < .05$. **$p < .01$

Table 13.2 Structure coefficients for significant canonical roots ($n = 121$)

Variables	Structure coefficients	
	Root 1	Root 2
Predictor set		
Exposure to violence	.58	.02
Sense of mastery	−.56	.15
Relatedness	−.36	.50
Emotional reactivity	.84	−.43
Connectedness to friends	.12	.35
Connectedness to parents	−.61	−.28
Connectedness to teachers	−.60	−.34
Criterion variables		
Rule-breaking behavior	.94	.34
Aggressive behavior	.93	−.36

in Table 13.1 revealed the following. The first dependent variable "rule-breaking behavior" was significantly correlated with all but one of the other variables (connection with friends). Although the null hypothesis cannot be proven, this suggests that whether one has friends or not does not depend on whether they break rules or not. As would be expected, rule-breaking behavior was strongly correlated with aggressive behavior (.74). The next strongest correlation for rule-breaking behavior was emotional reactivity (.54) followed by connectedness with parents (.46) and teachers (.44) and exposure to violence (.40). Aggressive behavior was most strongly positively correlated with emotional reactivity (.67) and negatively with sense of mastery (−.43).

Multivariate Analysis

A canonical correlation was used to determine the relationship between the predictor and criterion measures. One side of the model included rule-breaking behaviors and aggressive behaviors reported by youth. The other side of the model incorporated the predictor measures and included exposure to violence, sense of mastery, relatedness, emotional reactivity, connectedness to friends, parents, and teachers. The full canonical model was significant and accounted for 37 % of the variance between canonical composites, Pillai's $V = .73$, $F\,(14, 226) = 9.38$, $p < .001$. To assess the precise nature of the relationship between the predictor and criterion variables, a dimension reduction analysis was performed. Two significant canonical roots emerged from the model. The structure coefficients representing the correlations between the criterion and predictor variables and canonical variables, as well as the associated weights are presented in Table 13.2. The results suggest that youth who have a high level of emotional reactivity and high exposure to violence and a low connection to parents and teachers are more likely to engage in aggressive behavior and rule-breaking behavior.

Discussion

The current study attempted to understand the relationship between exposure to violence, sense of mastery, connections with parents, teachers and friends, and emotional regulation, and conduct behaviors and aggressive behaviors in youth. The findings supported the hypothesis that rule-breaking behavior and aggressive behavior would be positively related to emotional reactivity and direct exposure to violence and negatively related to a sense of mastery, relationships, and connectedness to parents, friends, and teachers. The canonical correlation found that those youth who had high emotional reactivity, expressed a poor connection with parents and teachers and also reported engaging in aggressive and rule-breaking behaviors. Findings suggest that the presence of higher emotional reactivity is critical to the reported rule-breaking behavior and aggression. It is possible that exposure to violence does not have the same impact on youth who are not high in emotional reactivity and/or that exposure to violence may affect a youths level of emotional reactivity.

Since the findings are based on correlation analysis and are not longitudinal, causal relationships have not been proven but may be suggested. For example, a youth who grows up in violent community where he or she witnesses violence on a regular basis and who is more emotionally reactive may also have poor relationships with parents and teachers and may learn the way to handle conflicts is through aggressive means. Youth who do not have a positive relationship with their parents or a strong connection to teachers may not receive positive praise for trying new tasks and therefore may be less likely to develop a high sense of mastery since they may not be receiving praise to reinforce positive behaviors and decrease inappropriate behaviors. In addition, youth who are exposed to violence may be more likely to struggle with regulating their affect and may display more explosive behaviors and emotional reactivity which can alienate them from family and teachers. For example, a child who witnesses domestic violence at home may display similar aggressive behaviors at school and at home. He or she may hit peers in the classroom, resulting in classroom removal, and later punishment from parents. Strong bonds with parents and teachers, on the other hand, are related to less aggressive and rule-breaking behaviors and higher reported self-efficacy. Therefore, it appears that helping youth develop healthy attachments to parents and teachers can serve as a protective factor for children who are at high risk due to exposure to violence. Also decreasing emotional reactivity and increasing self-efficacy may help youth avoid engaging in rule-breaking and aggressive behaviors.

Connectedness to friends, on the other hand, was not found to be significantly related to rule-breaking and aggressive behavior. Therefore it appears as though youth who have a strong relationship with parents and teachers reported less aggressive behaviors while youth who reported strong peer relationships did not differ in their level of reported aggression from youth who reported poor relationships with peer. This may be indicative that relationships with peers may be less of a protective factor than relationships with parents and teachers in reducing aggressive behavior

in youth who have been exposed to violence. Peers may be more accepting of aggressive behavior than parents and teachers and therefore may not deter youth from engaging in aggressive behaviors. They may even encourage youth to react in an aggressive manner to resolve conflicts.

The second canonical root found a moderate relationship between relatedness and low emotional reactivity and a moderate relationship with other variables. These relationships reflect residual association among variables once most of the variance was accounted for in the first analysis. Thus it is difficult to interpret with accuracy. One might infer however that helping youth develop strategies for managing their emotions and aggression may help them develop more secure general sense of relatedness.

The connection between increasing protective factors, such as parental bond, teacher connection, and increasing self-efficacy, and reducing emotional reactivity have been demonstrated in previous studies involving clinical populations (Farrington, 2005; Hart et al., 2007). Prince-Embury (2007) found similar results associating emotional reactivity with rule-breaking behaviors. For example, the *Emotional Reactivity Scale* was found successful in differentiating youth diagnosed with Conduct Disorder from those youth in a matched control among a sample of 76 youth ($t = -4.22$, $p < .0002$, $d = -1.8$) (Prince-Embury, 2007). The *Emotional Reactivity Scale* was also found to be correlated with the *Disruptive Behavior Scale* of the BYI-II ($r = .67$, $n = 200$, $p < .05$) in a normative sample (Prince-Embury, 2007). However, this study generalizes similar findings to include youth in a general population. Therefore children who are at risk for conduct problems and aggressive behavior can be identified early in an effort to prevent the behaviors from manifesting in the first place. Schools located in high poverty and high crime neighborhoods can offer universal prevention programs to help youth develop positive relationship skills and increase coping skills for effectively managing conflicts and other stressors.

Summary

The results of this study showed that youth in a nonclinical sample who reported less connection to their parents and teachers, a low sense of mastery, and a high emotional reactivity, also reported more delinquent and aggressive behaviors. These findings expanded previous literature by extending it to a general population of youth who scored low in their exposure to violence. This means that youth who demonstrate these risk factors might be followed more closely to assess their potential to engage in aggressive and rule-breaking behavior. Once these youth have been identified they might benefit from prevention programs to help them increase their resiliency by increasing self-efficacy, reducing emotional reactivity, and promoting stronger relationships with parents and teachers in an effort to avoid further difficulties.

Limitations

The data for the current study was collected using self-report measures which always leave room for error due to over- or under-reporting of symptoms. While the sample was random and all students enrolled in health and stress management were invited to participate, there may be some bias due to the nature of parents who provided consent for their children to participate in the study. Parents who consented may have overall had better relationships with their children resulting in a skewed sample. Additional bias may have resulted from the youth who chose to participate in the study. Youth who experienced a high rate of exposure to violence may have shied away from participating in the study not wishing to report their experiences. In addition, the stress management and health classes sampled for this study may have included youth with higher grade point averages. Also the nature of these relationships might shift in a qualitatively different sample, i.e., delinquent. In addition students reported above average grades which reduce the generalizability of the study since not all students will achieve similar academic success.

Implications for Practice

Previous research found that treating chronic delinquency and deviant behavior has been demonstrated to be ineffective (Kazdin, 1987). Therefore prevention may be more effective in reducing juvenile delinquency rates (Yoshikawa, 1994). Youth who are experiencing disruptions at home due to divorce, parental incarceration, parental substance abuse, or death of a parent could be provided with extra interventions to help promote healthy relationships with other caregivers such as mentoring programs. One example is the Big Brothers/Big Sisters Program (www.bbbs.org) which pairs at risk youth with mentors to establish a one-on-one relationship with an adult mentor who can serve as a parental figure. Students who truant themselves from school or do not appear to have developed nurturing relationships with teachers in the school should be placed in activities which allow more interactions with teachers to help promote a stronger bond. Rather than suspending youth or placing them in detention for truancy or behavioral difficulties youth should be encouraged to work more closely with teachers and counselors to identify the underlying causes of their behaviors and interventions could target those causes. For example, the Truancy Reduction Program (TRP) in Adams County, Colorado provides a voluntary alternative to court referral for truancy. Youth who receive four unexcused absences in 1 month or ten unexcused absences in 1 year are referred to the program. Parents are notified by letter and asked for permission to enroll in the program. Students enrolled in the program are assigned an Attendance Liason and placed on an Attendance Improvement Plan. Parents, school personnel, and administrators participate in developing the plan. Students are required to attend before and after school tutoring programs, peer and group counseling sessions, and drug and alcohol testing.

Counselors monitor their homework and grades. Students who are not meeting expectations are given sanctions including after school and Saturday detentions, parents attending school with them, referral to outside agencies if necessary, and referral to Juvenile Court as a last resort (Trujillo, 2006). Programs such as school-based truancy officers, home school liaisons, and homework groups might help youth feel more connected to their school and teachers rather than further alienated.

Prevention efforts could focus on increasing a sense of mastery and reducing emotional reactivity. Including activities which strengthen self-mastery into the curriculum would help youth become more resilient (Schukajlow et al., 2012). Programs such as the Emotional Literacy in the Middle School (ELMS) provide workshops to train teachers to increase the emotional intelligence of students in their classroom. Teachers provide lessons which teach effective communication, management of stress, and conflict resolution. Students learn to evaluate their emotions as well as the emotions of others, understanding emotions and what causes them, and effective strategies for managing their emotions. Administrators are given strategies to help promote a positive school environment and increase academic success of all students. Teachers and counselors could teach weekly lessons on increasing self-esteem, improving coping strategies, dealing with bullying behaviors, reducing stress, and improving anger management (Beat the bullies, 2012). Helping youth identify their strengths and fostering classrooms which allow for youth to express their strengths might also help to increase youths' sense of mastery. Teachers can foster self-efficacy by encouraging students to mentor each other in learning, assigning group activities or using grading practices which reflect individual achievements and improvements over time rather than grading practices which compare students to the group as a whole (Schulze & Schulze, 2003). Cooperative learning experiences which allow youth to work as part of a group can allow youth to feel more connected to peers and to their school (Ebrahim, 2012). Using multimodal teaching strategies which allows youth to demonstrate their strengths through creative projects can help promote a more positive sense of mastery. Classroom lessons which allow students to work in groups to research a topic and create a presentation utilizing their strengths such as writing, acting, music, or art would help students achieve a sense of mastery and belongingness. Youth who struggle with verbal skills can be provided with the opportunity to express themselves through visual means such as posters, models, or power point projects. Providing a variety of extracurricular activities for youth could provide additional opportunities for youth to increase their sense of mastery and increase their self-esteem. Youth can increase their sense of connectedness to schools and teachers by participating in sports, music programs, or student organizations facilitated by teachers. Book clubs and discussion groups can also be utilized to help marginalized students feel more connected to the school as well as the teachers. Increasing emotional regulation can be incorporated into the curriculum including anger management, stress management, and problem solving. The Resolving Conflicts Creatively program is a curriculum-based program which provides lessons aimed at violence prevention. The lesson plans cover topics such as conflict resolution, interpersonal skills, and prejudice and stereotypes. The goal of the program is to

transform school culture and to promote nonviolent conflict resolution skills and encourage respect for diversity among students and staff (Aber, Brown, Chaudry, Jones, & Samples, 1996). Youth identified as being at higher risk due to experiencing adverse experiences such as exposure to violence or experiences which interfere with parental bonding such as divorce, parental incarceration, or parental substance abuse could be referred for additional intervention efforts such as individual and group counseling facilitated by the guidance counselor. For example, the Families and Schools Together (FAST) program provides outreach to parents and families through a weekly, multi-family group session. The objectives of the group is to increase family functioning, prevent school failure in students, prevent substance abuse in students and their parents, promote parent–child bonding, improve family communication, increase parental authority, and promote parent–child bonding (McDonald, Billingham, Conrad, Morgan, & Payton, 1997). Students needing more intensive therapy could be referred for additional services at a counseling center. Contracting school-based therapists can provide another means for at risk youth to access services that may not be able to receive services otherwise.

Schools could also work to increase all students' connection to school. Assigning students to a team of teachers can help students feel more connected to those teachers and could also aid in the identification of students who are at risk. Team teaching provides teachers with the ability to meet on a regular basis with school counselors to discuss concerns about particular students in an effort to identify those needing additional services. Teachers who have formed a bond with a particular youth can provide insight into effective intervention efforts as well as become a resource for that student during difficult times. Perhaps the student can use that teacher's classroom as a safe place to work on affect regulation when they are experiencing difficulties in other classrooms. Teachers can get to know their students through journals or simply greeting students as they enter the classroom each day helping students recognize that teachers are interested in their feelings. Increasing the parent–school link can also increase a student's connection to school. Having parent night to allow parents time to meet their son or daughter's teachers several times throughout the year can increase communication and also help identify problems earlier. Teachers can also increase communication through phone calls, emails, and letters home. Communication needs to identify positive efforts by students rather than just focusing on negative behaviors. A sense of community can also be fostered through monthly family activities such as movie night, science fairs, and pot luck dinners. Extracurricular activities such as gardening club or walking club can encourage parental participation and promote a parent–school link as well as develop a stronger parent–child bond.

The Seattle Social Development Program (SSDP) is aimed at developing strong bonds between children, families, and schools. The program was offered to students enrolled in eight Seattle public elementary schools. The goal of the program was to reduce risk factors in youth who are at risk for engaging in delinquent behavior and substance abuse by increasing their social development and exposing them to protective factors. Teachers were trained in modified teaching strategies and proactive classroom management strategies. They were also given skills to utilize more cooperative learning strategies. Children received lessons on social competence, problem solving, decision making, and conflict resolution. Parents were required to

attend parent workshops which focused on identifying desirable and undesirable behaviors, providing appropriate rewards and consequences, engaging in family activities, improving parent–child communication, and providing a positive learning environment for their children (Hawkins et al., 1995).

Leaders within the school could also form partnerships with community and business leaders. Principals and counselors can invite members from community businesses and organizations to volunteer within the schools. Employees and CEOs can speak with youth about careers. Businesses can sponsor schools and serve as mentors for the youth as well as volunteer to coach sports teams, teach art and music, or simply donate money to sustain these types of extracurricular activities. Businesses can also be recruited to offer internships and volunteer opportunities for students so they can gain experience to help them obtain employment in the future.

Counselors can help increase resiliency in youth by utilizing a family systems approach to identify and treat barriers which interfere with the child–parent bond whenever appropriate (Welsh, 1999). Regular parent workshops which teach nurturing parenting strategies, effective communication techniques, and how to set limits with children would promote healthier parent–child relationships. Parents who have been identified as abusive or inappropriate should be referred to the department of children and family services in order to maintain the safety of the child and avoid inadvertently causing more abuse towards the child. Therapists could also work with the parents to increase monitoring of their children and provide clear expectations and consistent consequences during these workshops.

A program which works to improve family bonds and enhances parenting practices is the Multisystemic Therapy (MST). This is an in-home therapy program which focuses on preventing delinquent behavior by focusing on the systems that impact the child including the family, school, and peers. The goal of the program is to empower parents by teaching them the necessary skills and providing them with resources to address their children's behavioral difficulties. Therapists also use cognitive behavioral techniques to help reduce maladaptive thinking in the youth (Borduin et al., 1995).

When parents are not available or are not appropriate, adult caregivers or mentors can be identified to serve as surrogate caregivers or mentors for the youth. Therapy could also focus on increasing a sense of mastery. Youth can be encouraged to identify and verbalize their strengths. Negative self-statements which decrease their sense of mastery could be challenged and replaced using cognitive–behavioral techniques. Reducing emotional reactivity could also be the focus of treatment. Mindfulness-based techniques which teach accepting life experiences without judging or assigning emotional reactions to those events can help increase affect regulation and decrease emotional reactivity in youth (Coholic, 2011). Counselors can teach mindfulness techniques in the classrooms and teachers can be taught to reinforce a less judgmental way of reacting in their classroom (Garey, 2012). In addition teaching relaxation techniques and problem-solving strategies can also be taught by teachers and counselors in the classroom to help youth become more resilient in stressful situations and therefore less likely to exhibit emotional reactivity. Elementary school teachers can take several breaks throughout the day to help students practice relaxation techniques and light exercise to help promote better

emotional regulation. Middle schools and high schools can also offer stress management as part of the curriculum in health and physical education. Regular school assemblies which teach self-care through exercise and good nutrition can also increase a youth's ability to modulate their emotional reaction and help promote healthier lifestyle choices.

Implications for Research

Future research could focus on exploring additional risk factors such as poverty, parental incarceration, or divorce. Additional resiliency factors could also be explored such as a relationship with grandparents or extended family, playing sports, maintaining part time employment, and relationship with siblings. Research could also explore what factors improve healthy relationships between youth and their parents and what school and community factors increase the connection youth have with their school. Longitudinal studies which explore the relationships between risk and resiliency would provide more insight into causal factors of externalizing behaviors and would provide crucial information for developing more effective prevention and intervention efforts. Identifying risk factors which increase emotional reactivity and interventions which help reduce emotional reactivity can help educators and mental health providers develop effective strategies for identifying youth at risk for engaging in aggressive and rule breaking behaviors in an effort to reduce those behaviors. More research on current school-based interventions can help identify and promote effective prevention and intervention strategies for improving student functioning and reducing aggressive and rule-breaking behaviors.

Increasing resiliency in all youth by increasing the parental bond, his or her connection to school, and helping them develop a healthy self-concept are some ways that counselors and teachers can decrease the likelihood that youth will engage in aggressive or rule-breaking behaviors. These prevention efforts can be incorporated into the school curriculum and reinforced at home by parents. Youth who are more at risk such as those exposed to violence or those that experience disruptions to their family unit could be identified early and referred for counseling services to minimize the impact of traumatic experiences or family disruptions and help youth to effectively cope and avoid emotional and behavioral difficulties. Since intervention efforts do not appear to be as effective in reducing delinquency, a more effective approach is to increase resiliency in all youth and provide early preventative measures to youth at risk prior to the onset of any behavioral difficulties.

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Chapter 14
A Multilevel Approach of Promoting Resilience and Positive School Climate in the School Community During Unsettling Times

Chryse Hatzichristou, Eirini Adamopoulou, and Aikaterini Lampropoulou

Introduction

The evolution of school psychology internationally varies considerably depending on educational system, demographic characteristics, economy, geography, and other unique features of each country (Farrell, Jimerson, & Oakland, 2007). In many countries school psychology is at its early stages of development while in other countries the provision of school psychology services has been established. Despite differences regarding the roles, functions, and responsibilities of school psychologists worldwide, school psychology remains the applied field of psychology that can contribute greatly to the lives of children, parents, and teachers. Special emphasis has been given to prevention and intervention programs in the school communities that promote learning and positive development of all children and meet the psychosocial needs of children at risk.

This chapter describes the development of a multilevel approach of resilience building in the school community in times of economic crisis. This approach was developed within the context of an alternative model of provision of school psychological services and includes the implementation of intervention programs aiming to promote resilience and positive school climate.

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Alternative Model of School Psychological Services

In the last decade, the field of psychology has rapidly expanded in Greece, and a great deal of effort has been put into promoting the discipline of school psychology. The evolution of school psychology was related to the establishment of independent departments of psychology, the development of graduate programs in school psychology, and the inclusion of new legislation that created positions for psychologists in the public special schools and the Centers for Diagnosis, Assessment, and Support, the provision of psychological services in the schools by Community Mental Health Centers, the increase of the relevant literature in Greek, the establishment of university centers of school psychology, and the development of alternative models for the provision of school psychological services (Hatzichristou, 2004, 2011a; Hatzichristou, Polychroni, & Georgouleas, 2007).

Hatzichristou (1998) has proposed an integrative framework that synthesizes and expands the following principles: (a) the scientist–practitioner model for school psychology; (b) a systemic (i.e., social, cultural, ethnic, national, ecological) approach to assessment and intervention practices; (c) the evolving roles and functions of school psychologists in research, practice, and training; and (d) a systemic approach to professional development and identity of school psychologists. This integrative conceptual framework led to the development of a data-based model of alternative school psychological services that links theory, research, and practice to provide an array of services including assessment, psychological consultation, prevention, intervention, crisis counseling, research, training, supervision, management, and advocacy (Hatzichristou, 2004, 2011a).

The data-based model of alternative school psychological services was developed in four phases. The *three* first phases of the model documented the needs of Greek students, teachers, and families, as well as their attitudes towards mental health services and professionals. In Phase 1, an empirical database was developed to describe the profiles of school adjustment and performance of "average" Greek students. In Phase 2, the profiles of at-risk students with unmet needs were described, and in Phase 3, profiles were developed of the particular needs of specific school districts in communities where various intervention programs were being implemented. Throughout the years, each phase was enriched by new research domains and additional goals.

In the *fourth* phase, the empirical data derived from the first three phases of the model were integrated into a comprehensive prevention-consultation approach that led to the foundation of the Center for Research and Practice of School Psychology (CRPSP) in the Department of Psychology at the University of Athens. The main goals and activities of the CRPSP are (1) promotion of university–school–community partnerships and collaboration; (2) education, preservice and in-service training for graduate students, school psychologists, teachers, and parents; (3) scientific research and publications; and (4) development, implementation, and evaluation of multilevel interventions in the school community. Within this context a number of prevention and intervention programs have been developed and implemented in

different educational and cultural contexts for the promotion of school resilience, well-being, and crisis management.

During the last years, a special emphasis has been given to the promotion of resilience and positive school climate in schools responding to the increased psychosocial needs caused by the recent economic crisis in Greece. A multilevel approach was developed for enhancing resilience in school communities that provides the conceptual framework for developing appropriate interventions. The dimensions of the proposed multilevel approach are described in the following sections of the chapter.

Multilevel Approach of Resilience Building

Conceptual Framework

A synthetic approach to school community well-being has been proposed by Hatzichristou, Lykitsakou, Lampropoulou, and Dimitropoulou (2010). This approach has emerged from the current trends in psychology and school mental health that stress the need to shift away from a focus on individual problems to a focus on positive psychology perspectives and systems interventions that emphasize students' strengths and contextual protective factors (Biglan, Flay, Embry, & Sandler, 2012). The proposed synthetic approach to school community well-being incorporates theoretical concepts and practice models from *resilience*, *effective schools*, *schools as caring communities,* and *social–emotional learning literature* (Bickel & Beaujean, 2005; Doll, Zucker, & Brehm, 2004; Esquivel, Doll, & Oades-Sese, 2011; Henderson & Milstein, 1996; Kolar, 2011; Kress & Elias, 2006; Luthar, 2006; Masten, 2001, 2011; O'Dougherty & Masten, 2005; Sergiovanni, 1994). According to the authors by integrating these theoretical components in system-level interventions, schools can enhance resilience and promote a positive school climate at all levels. Effective schools that promote a positive school climate function as caring communities and provide not only opportunities for learning but also for the development of positive relationships are important protective factors and contribute to the promotion of resilience (Blum & Libbey, 2004; Masten & Reed, 2002). *Resilience*, *effective schools*, *schools as caring communities,* and *social–emotional learning* are the basic components of the proposed model and are considered as essential prerequisites for the promotion of school well-being.

This conceptual approach was further developed in an effort to design intervention programs that respond to the immediate needs of the school communities during the Greek economic crisis. A special emphasis was given to a multilevel resilience promotion (individual, classroom, and school level) that can have an important protective effect against life adversities. Within this systemic perspective, teachers can potentially be directed away from a deficit orientation frame to one that recognizes student strengths and contextual protective factors (Morrison, Brown, D'Incau, & O'Farrell, 2006).

Doll et al. (2004) define resilient classrooms as those having the following characteristics: academic efficacy, academic self-determination, behavioral self-control, caring and authentic teacher–student relationships, ongoing and rewarding relationships with classroom peers, and strong home–school collaboration. According to Doll and colleagues (2004), it is important for students to have a voice and give feedback on how they perceive themselves as learners as well as how they perceive their relationships with teachers and classmates. This voice is provided by the classmaps survey, which is a classroom-based tool in order to develop the classroom profile based on students' perceptions. Classmaps can also provide teachers with helpful insight regarding the overall classroom climate and indicate specific areas of focus for improvement. Teachers present the results of the classmaps survey in the classroom followed by a discussion regarding what needs to be changed and how this can be done. This classroom-based tool (classmaps survey) provides students an opportunity to actively participate in the process of classroom improvement. Hence classroom's improvement is everybody's responsibility and all the members of the classroom are actively involved in the process of change.

At a school level, Henderson and Milstein (1996) have described six basic factors that contribute to the promotion of resiliency in schools and that constitute the "Resiliency Wheel." These factors are: (a) prosocial bonding, (b) clear, consistent boundaries, (c) life skills, (d) caring and support, (e) high/positive expectations, (f) opportunities for participation. These areas aim at reducing risk factors but at the same time promoting protective factors. Teachers can apply the resiliency wheel using specific tools and following specific methodological steps in order to design, develop, and implement specific action plans for promoting resiliency at a school system level.

The application of the conceptual approach for promoting school community well-being also integrated the basic dimensions of a crisis intervention model within a comprehensive promotion of resilience and positive school climate in the school communities (Hatzichristou, Issari, Lykitsakou, Lampropoulou, & Dimitropoulou, 2011). The crisis intervention model includes the following specific domains: (1) *Conceptual framework* that consists of three basic approaches: (a) Promotion of resilience and well-being (Hatzichristou et al., 2010), (b) Children's reactions to crises Hatzichristou, Lampropoulou, & Lykitsakou, 2006), and (c) School-based crisis interventions (national and international level); (2) *Education and training*, *Publications* and *Collaboration—Partnership of SP*; and (3) *Interventions–Prevention–Promotion of school community resilience and well-being* (Hatzichristou et al., 2011).

The interventions described at the following sections were developed based on the described multilevel approach that combines the important parameters of the school well-being model with the dimensions of the crisis intervention model (Hatzichristou et al., 2011) placing an emphasis on promoting resilience and positive school climate (see Fig. 14.1). This multilevel approach was the basis for designing intervention programs that addressed the particular needs of the school communities that aroused as a result of the continuous economic crisis in Greece.

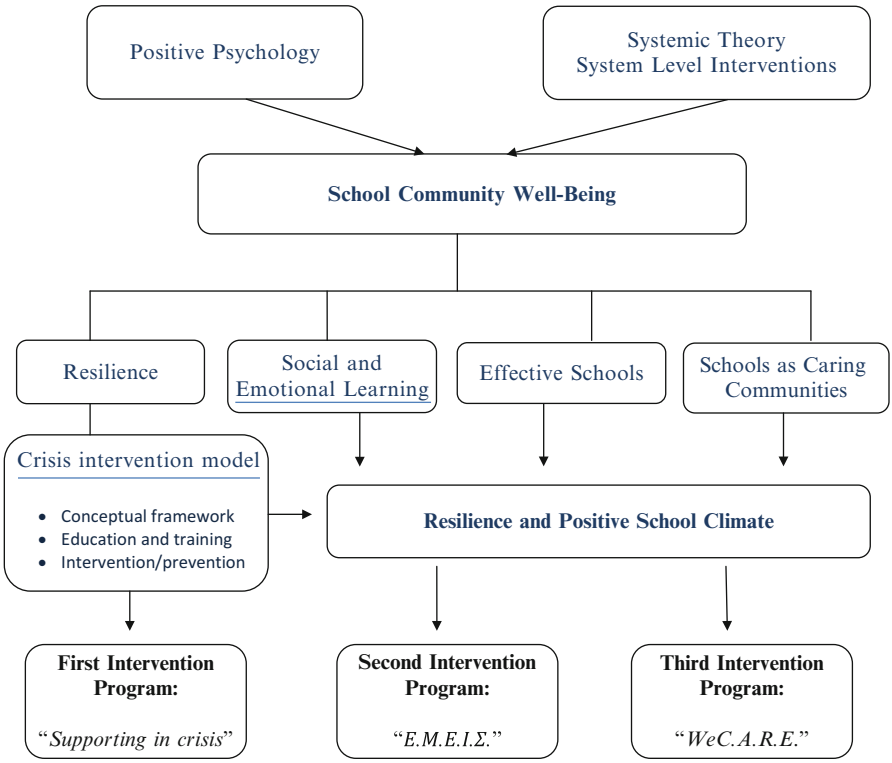

Fig. 14.1 Conceptual framework: multilevel approach of promoting resilience and positive climate in school community during unsettling times

Practical Level

Connecting for Caring Project. Responding to the current Greek crisis situation, the CRPSP of the University of Athens in cooperation with the Society for School and Family Consultation and Research developed Connecting for Caring (C4C), a multilevel prevention, awareness-building, education, and intervention project with the generous donation of Stavros Niarchos Foundation. This project is based on a holistic approach to foster positive development, adjustment and support of children and adolescents in the school and in the family. This scientific-based project is based on current international and Greek literature and aims to combine scientific knowledge, research, and practice in order to provide useful knowledge and promote best practices for teachers, parents, administrators, mental health professionals, but also for school age and adolescent children. The optimal goal of this project is to launch a national and international school network of resilient schools in these stressful times.

This multilevel project includes the following domains of action: (a) *Intervention programs* in Greek schools that target all the student population and intend to

enhance resilience and self-esteem, strengthen social–emotional skills, and to develop a positive school climate and supportive environment in the classroom and school-wide (Hatzichristou, 2011b, 2011c, 2011d). The two first school-based intervention programs were: The "*Supporting in Crisis*" program and the "*E.M.E.I.Σ*[1]" program. The intervention programs include specialized teachers' training seminars and classroom intervention; (b) *International intervention programs* and interconnection of schools in Greece with schools in other countries. The "*International We C.A.R.E. program*" is the first intervention program that was developed and implemented with the participation of teachers and students from six different countries;(c) *E-learning programs* (distance learning) and *Webinars* for teachers and parents; (d) *A school network* in Greece and in other countries that facilitates communication, collaboration, sharing of knowledge and experiences of teachers and students, as well as support and promotion of effective practices; (e) *Database of articles* on children's and adolescents' development and adjustment for teachers, parents, children/adolescents, as well as mental health professionals; (f) *Research and publications* that evaluate the process and effectiveness of the implemented programs and promote evidence-based practices; (g) *Scientific publications* for teachers, parents, and mental health professionals with the goal to promote awareness-raising and scientific knowledge, and (h) Organization of *scientific events* in Greece and in other countries.

First Intervention Program: "Supporting in Crisis" Program. The first program developed as part of the Connecting for Caring project is the "Teachers' training and intervention program for the psychological support of children in the period of economic crisis (Supporting in Crisis)." This intervention program was implemented in the peak of the economic crisis in Greece (January–May 2012) and was designed as a response to the immediate needs of teachers and students. Thus, the theoretical background of this intervention program focused on crisis prevention and intervention with a large attention on the economic crisis and promotion of resilience in school communities (Doll et al., 2004; Hatzichristou et al., 2010, 2011; Masten et al., 1999; Masten, 2006, 2007). An extensive literature review on economic crisis and mental health, family relations, and education was completed (Chang, Gunnell, Jonathan, Tsung-Hsueh, & Cheng, 2009; Economou, Madianos, Theleritis, Peppou, & Stefanis, 2011; Harper & Jones, 2011; Thacher & Manktelow, 2007; Uutela, 2010; WHO, 2011). However, the distinct characteristics of the Greek economic crisis, an ongoing crisis that affects all the population, made it difficult to apply the current crisis intervention models. Thus, an effort was made to implement a culturally competent crisis response that accounted for the particular features of the Greek economic crisis with an emphasis on fostering resilience at a system level.

Goal of the program. The "Supporting in Crisis" program aimed to support and strength students' and teachers' resilience and well-being at an individual, group, and school community level through out-of-classroom and in-classroom structured

[1] **Ε**νδιαφερόμαστε (Care)—**Μ**οιραζόμαστε (Share)—**Ε**νθαρρύνουμε (Encourage)—**Ι**σχυροποιούμαστε (Empower)—**Σ**υμμετέχουμε (Participate).

activities. At the same time, the program sought to explore the needs of teachers and students that emerged during the economic crisis in Greece. Specifically, the goals of the thematic units of the program were: (a) to provide knowledge concerning crises and children's symptoms and needs/ways of psychological support, (b) to strengthen teachers' resilience and well-being in times of economic crisis, and (c) to strengthen students' resilience and well-being through structured activities in their classrooms.

Structure of the program. The "Supporting in crisis" program included: (a) specialized teachers' training seminars; (b) development and implementation of structured classroom activities that promoted resilience at two levels—at an individual level aiming to enhance student's and teacher's resilience and at a group level promoting a resilient classroom (students and teacher); (c) development of educational material/booklet; and (d) needs assessment and evaluation of program effectiveness.

Description of the program's thematic units and implementation. The "Supporting in crisis" program included three specialized training sessions and a closing ceremony and implementation of structured classroom activities. The first introductory training seminar focused on the impact of the economic crisis on families and school communities, the crisis symptoms and needs of children and adolescents, and provided guidelines for children's support (Hatzichristou, 2012). The goal of this session was to build awareness of teachers on the effect of the economic crisis and how to respond to the immediate needs of their students.

The following two specialized training seminars focused on (a) promotion of resilience at an individual and system level and (b) coping and intervention strategies for teachers and schools. Specifically, the first part of the second training seminar included a presentation on resilience definition and promotion in classrooms and schools as a whole group. In addition, teachers were introduced the classroom activity that they would implement for a month. The first activity, which focused on the individual level, asked students to set and evaluate personal weekly goals as well as to identify their personal strengths or other factors (e.g., persons) that helped them to achieve them. They also received a personal booklet where they wrote down their answers on a weekly basis. In the end of the activity, students shared their goals in small groups and later as a whole class. Teachers also engaged in the same goal setting, completed their personal booklet, and shared their responses with their students. This activity aimed to strengthen students' and teachers' resilience at an individual level (personal resilience). This activity was selected because the process of setting and achieving goals has been found to act as a protective factor at a personal level (Henderson & Milstein, 1996). The second part of the seminar involved a special designed experience-based activity for the teachers in small groups in which they recalled personal stories of resilience.

The third training seminar consisted of a presentation on coping strategies for stress as a whole group as well as the classroom activity of this unit. This classroom activity, which shifted focus to the group level (classroom–students and teacher), asked students to work together as a class and set classroom goals, evaluate them weekly and identify the factors that assist them to achieve them. At the end of each week, students evaluated as a group whether their classroom had succeeded its goals. Similarly, students evaluated the weekly classroom goals by completing a

classroom booklet. Involving students to this activity promoted their feeling of autonomy, competence, and participation and helped them to realize their responsibility in achieving the classroom goals (Doll et al., 2004; Henderson & Milstein, 1996). In small groups, teachers received supervision of the implementation of the classroom activity of the previous unit (personal goals) and participated in an experience-based activity for the teachers that asked them to identify individual and group activities as a school that addressed the following six factors of resilience that had been identified by the literature review of resilience promotion: (a) Relationships, (b) Responsibility/Participation, (c) Values/Expectations, (d) Setting goals, (e) Self-esteem/Recognizing abilities, and (f) Recognizing positive elements. This activity aimed to help teachers identify empowering factors in their personal and professional work that can be a source of support in difficult times. In the closing ceremony, teachers presented examples of the implementation of the activities in their classrooms in an effort to promote best practices.

Building on the literature of resilience promotion in school communities (Doll et al., 2004; Henderson & Milstein, 1996), the goal of the thematic units and their activities was to empower individual and environmental factors of resilience and to strengthen coping of teachers and students during this stressing period of their lives.

Educational Material. During the training seminars, the participant teachers also received educational material that included directions of the specially designed and structured classroom activities with specific goals and implementation process concerning practical matters (i.e., time of implementation), as well as special considerations and modifications depending on students' age. Teachers also received personal booklets for every student and teacher, and classroom booklets. In addition, special educational material was provided to the teachers in order to advance their knowledge in the theoretical concepts and units of the program in the format of articles and small booklets. A special booklet on the psychological support of children in crisis situations was written and given to the participant teachers (Hatzichristou, Kati, Georgouleas, Lykitsakou, & Ifanti, 2012).

Participants. Three hundred and forty-four elementary and kindergarten teachers (K-6) from Athens and surrounding areas and ten graduate students of school psychology participated in the introductory seminar that was conducted in order to inform teachers about the program and to receive their applications for participation. One hundred and thirty-eight teachers from 29 schools (3 kindergartens, 24 elementary, and 2 special education schools) serving approximately 3,000 students were selected to participate in the subsequent three training sessions and implementation of the intervention program based on specific criteria (e.g., number of teachers per school, high-need schools).

Assessment Process. The assessment process consisted of two phases, the needs assessment phase and the evaluation of the program:

(*a*) *Needs assessment*. The needs assessment process was conducted at an individual and at a system level during the academic year 2011–2012 before the implementation of the intervention program. In the research 227 teachers participated

from kindergartens and primary schools from all school districts in the area of Athens and some surrounding regions. For the needs assessment phase, teachers filled in (a) a questionnaire regarding the effects of the crisis in their schools with close and open-ended questions, (b) the Perceived Stress Scale (Cohen, Kamarck, & Mermelstein, 1983) in order to evaluate the perceived stress that teachers were experiencing, (c) the School as a Caring Community Profile (Lickona & Davidson, 2001) in order to evaluate to what extent teachers perceived their schools as communities that cared and supported their members, and (d) open-ended questions regarding the existing difficulties in their schools (e.g., What are the main difficulties that you are facing in your classrooms and in your schools?).

The results showed that in relation with the crisis the main effects identified by the teachers were (a) children's difficulties to participate in school activities (57 %), (b) increase of intrapersonal problems (41.6 %), (c) less pocket money (38.9 %), and (d) increase of interpersonal problems (33.5 %). They also reported an increase in job loss for students' families and they pointed out that schools face severe problems regarding infrastructure (65 %) and building maintenance (46.4 %). Finally, collecting food and clothes was one of the most common actions organized by the school communities (54.7 %). The situation was similar regardless the area or the school district and it became apparent by teachers' words that the economic crisis has affected all the members of the school community. An interesting finding was increased stress expressed by teachers since 77 % reported high level of stress while 22 % reported a moderated stress level. The analysis of the open-ended questions revealed that teachers' main difficulties at a classroom level were: (a) problems regarding students' social and emotional issues, (b) conflicts between students, (c) students' learning difficulties, (d) difficulties regarding cultural, social, and economic diversity among students, and (e) difficulties relating to classroom resources. The difficulties at a school level were: (a) cooperation and communication among colleagues, (b) school and family cooperation, (c) school resources, (d) diversity school population, and (e) difficulties regarding students' psychosocial adjustment.

Based on the findings, it was evident that teachers and students were in need for support and especially teachers were in need for guidance on how to support their students and how to promote psychological well-being and resiliency in their classrooms.

(*b*) *Evaluation*. The program evaluation entailed the application of a multilevel evaluation model in terms of content and process, as well as the effectiveness. The results from the content and process analysis regarding the application of the program in the classrooms revealed important benefits both at an individual and at a system level. Teachers as well as students managed to enhance their self-esteem and their ability and to take initiatives through the implementation of individual and group goal setting and self-awareness activities and projects. The participation in the group activities empowered the relationships among students, among teachers, and between students and teachers, and created a positive climate in schools. In general, the program managed to cater for the

social and emotional needs of students and teachers, as these were defined by the needs assessment process, and to contribute to the promotion of resilient classrooms and schools. Finally, it should be mentioned that the pre- and post-analysis of the data received by teachers' answers on the SCCP scale showed a statistically significant increase for the means on the factors "*Friendship and Sense of Belonging*" [that evaluate the extent that students feel like members of the school community and that they belong in their schools according to teachers' opinion (M.S.pre = 3.14 and M.S.post = 3.34, $t(77) = -2.27$, $p < .05$)] and "*Students' Respect*" [that evaluate the extent that teachers feel that students in their schools respect, accept, and care for each other (M.S.pre = 3.25 and M.S.post = 3.49, $t(54) = -2.51$, $p < .05$)] after the implementation of the program. The findings show an improvement on students' relationship and on school bonding which are vital elements of a resilient classroom.

Second Intervention Program: The "E.M.E.I.Σ." Program. The "Teachers' training and intervention program for the promotion of a positive school climate and resilience in the school community (E.M.E.I.Σ)" was the second program of the Connecting for Caring project developed and implemented during the 2012–2013 school year (October to May) in schools from the capital city of Athens and surrounding areas. The "E.M.E.I.Σ." program was oriented mainly to the promotion of resiliency since the findings from the evaluation of the "Supporting in Crisis" program and the needs assessment revealed the need of school communities to enhance their resilience through a school-based intervention program. At the same time, as the financial crisis in Greece continued, an effort was made to design and implement a recovery response intervention program that helps teachers, students, and all the school community to proactively build their resilience and strengthen their coping skills against the distressing effects of these challenging times.

Thus, the theoretical background of the program integrated the literature on resilient classrooms (Doll et al., 2004) and resilient schools (Henderson & Milstein, 1996) with positive school climate (Blum & Libbey, 2004). Specifically, the methodology of classmaps and resiliency wheel were included for resilience enhancement. Initially, the classmaps questionnaire was included in the needs assessment phase and the analysis results were taken into account for the organization of the program. Secondly, the initial activities of the program adapted a synthetic version of the resiliency wheel that included values and goals at an individual and system level and features that students liked in their classrooms and schools and things that they would like to change. Students and teachers had to develop their own school/classroom resiliency profile using a methodology coming from the resiliency wheel and the classmaps design (see Table 14.1). Through this process, teachers and students discovered their strengths and weaknesses, they redefined their values, and they reset their goals turning them into action plans. It should be mentioned that the findings from the earlier program ("Supporting in crisis") and the resiliency factors that were revealed were incorporated in the resiliency wheel there for the class had to express values and goals. An important dimension for promoting classroom resiliency is monitoring and evaluating classroom's course by students themselves

Table 14.1 Plan of "E.M.E.I.Σ" program implementation in the classroom for kindergarten and elementary teachers

Teachers' training program and intervention for the promotion of a positive school climate and resilience in the school community (E.M.E.I.**Σ**)			
Thematic unit	Content	Examples of classroom activities	Recording (students)
Beginning of our journey	Becoming a team	Odysseus and his company	**"My personal goals"** (It should be completed before the first meeting, after the initial presentation of the program in the classroom)
	Values of our classroom	Our classroom's luggage	
	Goals of our classroom	Where is our … Ithaca?	
The island of Calypso	Emotions	One emotion … Many situations	**Personal Booklets "Mythical journeys"** (at the beginning and the end of each thematic unit)
The island of Polyphemus	Stress management	I help myself—I help my friends	**Chart with the classroom goals** (*at the end of each theme*)
The island of Phaeacians	Social skills	The unsociable Mr. Mayor	
Scylla and Charybdis	Conflict management bullying	Everybody knows …	
Our Ithaca	Closure-review	Closure-review	

(Doll et al., 2004). Therefore at the end of each thematic unit, classrooms have to conduct their own evaluation using graphs in order to see how well they performed in relation with their initial goals and what they can do to improve their performance.

Goal of the Program. The goal of the "E.M.E.I.Σ." program is the development of a positive climate in schools in order to reinforce the individual and group resilience as well as the promotion and development of internal strengths, motivation, and skills in the school environment. Additionally, this program offers to the educators an opportunity to strengthen their own resilience and, at the same time, to support and empower students in the classroom. An important goal is also to develop a broader supportive network for the school community by covering the intense needs for psychological support, which have emerged from the current economic crisis.

The thematic units of program aim (a) to develop an intervention program that promotes positive school climate and resilience in the school environment, (b) to identify and strengthen the values pertaining the classroom and the school unit, (c) to process the social–emotional reactions in crisis among members of the school community, (d) to promote coping and stress management, (e) to encourage the development of self-improvement strategies in children, and (f) to comprehend and manage the patterns of aggressive behavior in the school environment during difficult times. In all its stages the program promotes the reinforcement of protective factors while at the same time tries to reduce the risk factors; the final outcome is to enhance the academic and psychosocial competence and well-being.

Structure of the Program. The "E.M.E.I.Σ" program included: (1) specialized teacher training seminars; (2) development and implementation of structured classroom activities. These activities were implemented: (a) *at an individual level* for each student, where the goal is to strengthen and support each child, (b) *at a classroom level* with the goal to create a positive climate and strengthen/support of all the classroom members including the teacher, and (c) *at a school unit level* with the goal to promote resilience and a positive climate to all members of the school community; (3) development of educational material/booklet; (4) promotion of a school network through an electronic platform; and (5) needs assessment and evaluation of program effectiveness.

Description of the Program's Thematic Units and Implementation. The thematic units of the program were the following: (a) practical model of resilience and positive school climate promotion-identifying values and goal setting, (b) crisis management in the school community, (c) coping with stress, (d) social skills, conflict resolution and bullying, and (e) teachers' burn out. Each thematic unit included a specialized training session that presented the theoretical background/framework of the unit and especially designed and structured activities that teachers implemented weekly in their classrooms. The classrooms activities involved a journey in a series of "islands-stations" inspired by Ancient Greek Literature and Mythology (e.g., "The journey of Odysseus"). Each "island-station" represented each of the thematic area (module) and addressed the goals of each unit (two to three activities per module; See Table 14.2).

The first training seminar introduced the participant teachers to the theoretical constructs and applications of resilience, positive school climate, school engagement, life values, and goal setting. Additionally, teachers were presented the classroom activities of this unit that prepared their students for teamwork in their journey with the "E.M.E.I.Σ" program. In this module, teachers and students identified the values of their classroom and engaged actively in goal setting individually (personal goals) and as a group (classroom goals). The values of each classroom formed the values of the school at large. At the end of each thematic unit (island), students evaluated whether they had achieved their personal and classroom goals as well as the new knowledge and skills they acquired from the activities in their classroom. Classrooms were also encouraged to design special graphs of their classroom progress in the program towards the achievement of their goals (See Appendix 1).

The second training seminar focused on crisis management in the school community, the crisis symptoms and needs of children and adolescents, and provided guidelines for children's support. A special emphasis was placed on the long-term reactions and needs of children since the programs were implemented a year after the beginning of the economic crisis. The classroom activities of this unit involved the first stop of their journey in the island of *Calypso*. After students were introduced to the mythical stories of this island, they participated in activities that helped them to identify and express their emotions as well as to deal with difficult emotions (See Appendix 2).

The third training seminar included a presentation on stress and coping strategies for students and teachers. Teachers participated in relaxation body activities that

Table 14.2 Values and goal setting of the "E.M.E.I.Σ." program (worksheet for teachers)

		Assessment (class profile)		Goals	
Domains of resilience	Values	Positive aspects (what we like in our class)	Difficulties (what we would like to change in our class)	Reinforcement of positive behaviors	Reduction of negative behaviors
Development of positive social bonds Provision of care and support Opportunities for meaningful participation	Relationships				
Clear and consistent limits	Limits and discipline				
High expectations	Learning				
Social skills	Positive oriented behaviors				

aimed to help them deal with their stress but also provided ideas of how to incorporate these activities in their classroom practice. The journey of the classrooms continued in the island of *Polyphemus* where students engaged in activities that aimed to help them to cope with stress and anxiety in their everyday lives (See Appendix 3). The theoretical framework of the fourth training seminar focused on social skills, conflict resolution, and bullying in the school communities. Enhancing social skills promotes positive behaviors and prevents aggressive behaviors in schools. Classrooms and schools that have a positive school climate and function as a caring community can act as important protective factors for promoting resilience. Firstly, students participated in classroom activities of the island of *Phaeacians*. These activities aimed to promote social skills in students (See Appendix 4). Secondly, students travel to the island of *Skylla and Charyvdi*. The classroom activities of this island targeted conflict management and bullying in schools (See Appendix 5).

The fifth training seminar presented information on teachers' burn out especially in crisis and copying mechanisms. At this point, the journey of the classrooms reached its end and students prepared for the closure of the program in their classrooms. Students reviewed their goals and accomplishments during the implementation of the program. Teachers and students also had the opportunity to choose one of the suggested activities (such as exchanging wishes that they had written in balloons) in order to complete their journey.

The training seminars also involved supervision of the program implementation in classrooms by the scientific team and especially designed experience-based activities for the teachers in small groups. The experiential activities created an opportunity for teachers to process and comprehend the concepts that were presented in the theoretical part, as well as to be better prepared to implement the suggested classroom activities. The program also included a closing ceremony where teachers presented examples of the implementation of the activities in their classrooms in an effort to promote best practices.

Participants. One hundred and twenty-five teachers and 3,200 students from 38 primary schools (1 Kindergarten, 17 Elementary, 4 special education schools) and secondary schools (16 Junior high schools) in Athens and surrounding areas participated in the "E.M.E.I.S" program during the 2012–2013 school year (October to May).

Educational Material. During the training seminars, the participant teachers received educational material that included the specially designed and structured classroom activities with specific goals and implementation process. The classroom activities were designed for three different age groups: Kindergarten to Grade 2, Grade 3 to Grade 6, and Grade 7 to Grade 9 (Hatzichristou, 2011b, 2011c, 2011d). In addition, special educational material was provided to the teachers in order to advance their knowledge in the theoretical concepts of the program. Students also received personal booklets were they evaluate their progress, knowledge, and skills from each thematic section.

Promotion of a School Network Through an Electronic Platform. Teachers also had the opportunity to share their work through the use of an electronic platform (www.connecting4caring.gr). Each participant school selected a teacher who acted as the school coordinator and was responsible for uploading the material from the program implementation in his/her school. In addition, the school coordinator had access to the shared work of the other schools. The inclusion in the program of the electronic platform facilitated communication, collaboration, sharing of knowledge and experiences of teachers, as well as support and promotion of effective practices through a school network.

Assessment Process. The assessment process consisted of two phases, the needs assessment phase and the evaluation of the program:

(*a*) *Needs assessment*. Before the implementation of the "E.M.E.I.Σ. program" a needs assessment research was conducted during the academic year 2012–2013 with the participation of 141 teachers and 683 students from primary and secondary education. Teachers filled in: (a) the needs assessment questionnaire that included close and open-ended questions regarding the crisis effects on the schools, (b) School as a Caring Community Profile-II (SCCP-II) (Lickona & Davidson, 2001), in order to evaluate to what extent teachers perceived their schools as communities that cared and supported their member, (c) Perceived Stress Scale, PSS (Cohen et al., 1983), in order to evaluate the perceived stress that teachers were experiencing, (d) Organizational Commitment Questionnaire—Affective scale (Allen & Meyer, 1990) in order to evaluate how close and committed teachers felt towards their schools, and (e) "Personal Resilience Questionnaire," (Warner, 2012) in order to evaluate teachers level of personal resilience. Students filled in: (a) the needs assessment questionnaire that included close- and open-ended questions regarding the crisis effects, (b) School as a Caring Community Profile-II (SCCP-II) (Lickona & Davidson, 2001), (c) Classmaps Questionnaire (Doll et al., 2004) in order to evaluate students' perceptions regarding their classrooms, and (d) a questionnaire regarding social and emotional competence.
Teachers: In relation with the crisis consequences, the findings from teachers' data confirmed the findings from the previous years with the percentages being somewhat increased depicting the worsening of the situation. Teachers' answers regarding their concerns revealed that at a personal level they are mainly worried about family issues (how to create a family, maintenance of family's happiness) (40.9 %), finances (39.7 %), quality of life (25.5 %), and the difficult feelings they experience as a result of the crisis (insecurity, pessimism, anxiety, lack of sentimental resources). At a professional level, they are worried mainly for their professional status (losing their job, lack of motivation, salary reduction) (84.4 %) and their unpleasant feelings (pressure, anxiety, stress) (17.7 %). The analysis also showed that teachers are asking help regarding ways to support students and parents during the crisis, to promote children's well-being and psychological resiliency and to deal effectively with children's behavioral and learning difficulties.

It should also be mentioned that the results indicated an increased feeling of stress on behalf of the teachers since 48.8 % reported high level of stress and 50.2 % reported a medium stress level. The findings also revealed a somewhat positive attitude and commitment of the teachers towards their schools and a somewhat moderate level of a sense of school community especially for secondary teachers. Finally, the majority of teachers (65.5 %) seem to have a medium level of personal resiliency.

Students: In relation with the crisis effects students reported that their families main problem is that they have increased difficulties to cover for the expenses (59 %), while 29.1 % of the students admit that at least one of their parents has lost his job. They report difficulties in participating in school activities such as excursions or cultural activities (50 %) while they report that they have less pocket money (30 %). Their main anxieties and worries are (a) their families' inability to pay bills and current expenses, (b) possible lack of food and other essentials such as clothing, (c) their parents' emotional state, (d) their future, (e) their own negative feelings such as fear, pessimism, and sadness, and (f) change of residence and living status. The results also revealed that students' scores were around the middle of the questionnaires scale regarding their feeling of their classrooms and schools as caring communities and resilient classrooms while most of the factors on the social competence questionnaire were just above the mean score. The most interesting finding was the statistically significant differences that were found for almost all the factors of the questionnaire used between primary and high school students showing the increased need for support that the older students require. This increased need was also evident by the teachers who expressed their agony and their ignorance on how to support their high school students and how to enhance their resiliency.

(*b*) *Evaluation*. The complete evaluation of the effectiveness of the program is still in process. However, some preliminary results can be described from the process and content analysis that has been applied on the questionnaires that were given to teachers throughout the seminars and on the students' material from the program activities. The content analysis on the questions posed on teachers regarding the benefits of the program to their students led to the following categories: (1) *at an individual level*: (a) promotion of social skills, (b) expression and management of emotions and stress, (c) change/improvement of behavior, (d) enhancement of self-esteem/self-perception, (e) improvement in learning, (f) goal setting/puzzling; (2) *at a system level*: (a) enhancement of cooperation/promotion of team spirit, (b) improvement of school climate and enhancement of relationships, (c) motivation/goal setting as a team, and (d) acceptance/reduction of conflicts. In addition teachers acknowledged that the goals of the program's thematic units were achieved and placed emphasis especially on benefits regarding relationships, social skills, and climate which are basic prerequisites for the promotion of resiliency in schools. The benefits were especially stressed by those who participated in the program for a second subsequent

school year. It was quite impressive that the categories from the analysis were quite common regardless the classroom, the school, or the educational level revealing the similarities and the common needs of all students and teachers. Finally, a very encouraging shift was found regarding teachers' attitudes, from a skeptic and reserved attitude towards the program to a more positive one. Regarding students, the results showed that they seemed to have a very positive attitude towards the program acknowledging the need for its implementation. Students tended to focus especially on relationships and friendships both in relation with the goals they chose to set and the benefits they stated that they gained from the program implementation. The effectiveness of the program was especially evident by the graphs that were being constructed at the end of each thematic unit revealing the improvement towards the realization of their goals. The emphasis on the relationships and on goal setting and in particular the monitoring of the goal achievement at a group level is an important factor for promoting resilient classrooms (Doll et al., 2004).

Third Intervention Program: International We C.A.R.E Program. The third intervention program was developed to promote positive school climate and to strengthen resilience in the school community and to create cultural bridges and interconnection between Greek students and students from the Greek diaspora. The program was implemented between February and May 2013 in primary and secondary Greek schools as well as schools in other countries that include Greek language instruction in an effort to develop a national and international network of resilient schools as a caring community. This distance learning program was offered through an interactive electronic platform and contains teachers' training seminars, implementation of classroom activities in schools, use of an online interactive educational game (Sailing for Caring), development of a school network, and program evaluation. In the initial pilot phase of the program 67 teachers and 1,061 students participated from 32 primary and secondary schools from Greece, Cyprus, the USA, the United Kingdom, Belgium, and Ireland.

Towards a Transnational Multilevel Approach of Promoting Resilience and Positive School Climate

In this chapter examples of intervention programs aiming at promoting resilience in schools in times of crisis were presented. In addition a model of school community well-being was described that combined current trends and theoretical approaches in school psychology placing emphasis in positive psychology and systemic perspective. The proposed model considers *resilience*, *effective schools*, *schools as caring communities,* and *social–emotional learning* as important parameters of school well-being and constitutes the conceptual framework for interventions in schools.

This conceptual approach was further evolved incorporating a crisis intervention model as a response to the emerged needs of the school communities during the economic crisis in Greece. The distinct features of the economic crisis led to a need to differentiate the focus of the intervention programs. Specifically, the first intervention program was developed during the initial phase of the economic crisis. The goal of the intervention program was to provide immediate support to the members of the school community. The second intervention program was delivered a year after when the needs of the schools were different and the focus needed to be mainly towards the promotion of resilience and positive school climate. The current crisis intervention models were proven inadequate since they seem to apply to other types of crisis. This led to the evolution of the initial conceptual framework with the incorporation of resilience in crisis intervention pointing out the need to more holistic approaches to such cases.

The practical application of this model is evident in the intervention program "E.M.E.I.Σ." This program aimed at the promotion of resilience at an individual, classroom, and school level and positive school climate in Greek schools (national level). Particular emphasis was given in the development of a supporting school network among the participant schools. The same conceptual framework was applied in the pilot phase of implementation of the "International Program We C.A.R.E." with schools from Greece and schools from other countries of the Greek diaspora. The formation of this broader supporting school network (international level) required a differentiation in the content and goals of the program that accounted for the culturally specific needs. The program included teachers' training, classroom activities, and online interactive game in order to promote positive school climate and resilience in a broader context. The next implementation phase of the program includes an expansion to schools from other countries using the English language. This economic crisis affects not only Greece but mainly other countries as well. This proposed multilevel approach can form the basis for the development of a transnational model of resilience building in times of economic crisis that can be especially adopted and applied in several other educational settings.

Various intervention programs at a school community level in different systems and cultures can be identified. The traditional intervention programs internationally are mainly domain specific (i.e., social–emotional programs, crisis intervention program, resilient programs). Most countries are affected by the economic crisis, which is a global concern for most educational systems worldwide. The distinct characteristic of the economic crisis is the long-term evolving process affecting many areas of family and school life. Therefore the traditional intervention models are not adequate to cover the changing needs of the members of the school communities. The proposed model is multidimensional synthesizing different theoretical domains placing emphasis on different goals depending on the needs of the school community at different stages of the adaptation process of the crisis. This transnational model takes into consideration the common and diverse needs of children and systems (common and culture-specific needs and adversities) and builds on positive potential, competencies, and strengths as a means of enhancing resilience at an individual (student, teacher) and system level (classroom, school).

Appendix 1: Thematic Unit A: Practical Model of Resilience Promotion: Identifying Values and Goal Setting

Activities for Grades 3, 4, 5, 6

Activity 1: Odysseus and His Company

THE LEGEND: After many years of staying in Troy, Odysseus is making preparations for his return to Ithaca. A team of sailors, who Odysseus trusts for their experience at sea and their loyalty, sail along with him. Odysseus and his companions will have to cooperate in order to succeed in reaching their destination: Ithaca.

Procedure

In an effort to unite the potential of the class in a team that will cooperate as effectively as possible, we ask the pupils to divide initially into teams of 4–5 persons per team. Every team has to register each member's competencies. These competencies may not be only academic (i.e., he is good at grammar). Every team will unite their multiple skills in a poem/passage and will report to the class its synthesis. Then all the poems/passages are united in one, so EVERYONE's skills are evident in the class. The pupils applaud their team. They congratulate each other on their skills and they decide altogether for the name of the ship that will navigate them in the sea of myths.

SUGGESTION: At this meeting where there is mention of the formation of the co-sailors on Odysseus's boat, we can create work teams for our own boat. These teams will secure the best possible course, i.e.:

ESTIA—HEPHAESTUS team
(will be responsible for maintaining the class clean and tidy)

ATHENA—CHIRON team
(will be responsible for registering the course of the class keeping notes which will be cited at the meeting upon completion of the "Travel Log"

HERMES—APHRODITE team
(will be responsible for the transition of requests and thoughts of the classroom as a team to their teacher)

CRONOS—REA team
(will be responsible for the class security—from accidents or … quarrelling)

It would be better if these teams would change formation every week. In order to avoid delays from the formation of the teams on a weekly basis, we can define from the beginning who will be in which team and when, and put the program up in the classroom. Every team comprises 4–5 individuals and it is wise for the choice to be made at random—draw—so that everyone gets the chance to work with everyone in the classroom.

Activity 2: "Our Classroom's Luggage"

The crew of the ship has by now registered their competencies and it is getting ready to begin the long voyage. Before sailing, though, the classroom suitcase must be prepared carrying the necessary supplies, which will secure the best possible course of the ship in the unknown waters of mythical voyages.

Procedure

We divide the class into teams of 4–5 students. We tell the class that they must have along in their journey a common suitcase, which will comprise "things" that will strengthen and support the members of the team in order to face probable difficulties that may occur and which will delay their arrival to their own …Ithaca. We, therefore, request from every team to register those stable elements that each of its members believe they will accompany him/her in his/her life; in the way of making decision, friends, and ways of life. The content of the suitcase must comprise the VALUES that each one holds, from all those or from that one thing he considers important in his life. (See teacher's leaflet "***Our life***: ***values-goals.***" Only the column on values is to be completed). For the completion of the leaflet, relative instructions are given. All registrations of the teams will be read in class and will be gathered symbolically in one box, in order to form the classroom luggage where the class can, if necessary, refer to in order to pick the "value" that will help them face the difficulties which they may encounter; in this way they will take new "supplies" in order to proceed with their voyage.

Activity 3: Where Is Our … Ithaca?

Odysseus, upon the completion of the Troyan war, begins his return voyage to his home town, Ithaca. This voyage lasted 10 years; he faced many difficulties and many pleasant and unpleasant situations. All this time though Odysseus had one goal only, to reach his island, his home, his family.

Procedure

We ask the class to work in groups of 4–5 people. Every group must write down the things they like in their teams and three to five things they would like to change. The things they wish to change will form the goals of the class, their final destination, Ithaca. What do they wish to accomplish as a team? To have a good time, to help each other, to eliminate fighting, everyone to learn from it, etc. The goals of the teams are registered on the board. The class in a secret or open voting chooses 3–5 goals they want to succeed.

(The goals of the classroom are written down by the teacher in the relevant printed matter that was given at the first training seminar: "***Our class***: ***values—goals"***—we complete the columns Our positive elements/Our difficulties/Our goals). For the completion of the leaflet, relative instructions are given.

We ask from a team to prepare a poster-sign which will be put up in class and will remind everyone the final destination—the team's goals.

Appendix 2: Thematic Unit B: Identifying, Expressing, and Dealing with Emotions

Activity for Grades 3, 4, 5, 6

One emotion…many situations

Goals

- Help students recognize various feelings
- Help students understand that the same feeling can be expressed in different situations

Procedure

Divide the class into small groups of 4–5 persons. Afterwards every team gets a colored cardboard, an envelope that contains the vocabulary of emotions and a number of drawings that show different situations of our daily lives. The children are asked to glue the drawings on the cardboard and then decide what words, from the ones given, are appropriate to describe the feelings the heroes of the drawings are facing; they can use more than one feeling for each drawing. When the activity is completed, every team will present its cardboard.

Discussion Points

- What differences were there among the collages of the teams?
- Can there be different emotions for same situation?
- Is the same emotion always caused by the same situation?

  For example: *can we feel angry for a lot of different reasons*?

- What is the importance of recognizing and expressing emotions for us and for others?

We feel relieved, *we communicate better with the others*, *we can empathize more easily*, *we understand and accept our emotions*, *we define our goals better,* etc.

Materials Needed

Four colored cardboards, four colored envelopes, labels with words that refer to emotions, photocopies with drawings that show everyday life situations, four boxes of pins, eight glue sticks, eight boxes of markers.

Appendix 3: Thematic Unit C: Stress Management

Activity for Grades 3, **4**, **5**, **6**

I help myself—I help my friends

Goals

– Help students comprehend strategies and ways that can help them face effectively a situation that creates intensive stress.

Procedure

We place on the board two children figures made from cardboard (a girl and a boy), Aristides and Melina. We narrate to the pupils a difficult situation that Aristides and Melina are facing (i.e., the lost their beloved puppy). We mention what they did to cope with the situation but without solving their problem in the end (i.e., they start blaming each other). The class is divided into three teams A, B, and C. Each team is asked to "help" its friends to feel better, by suggesting effective ways of coping with the situation. Every team presents their proposals to the class. All proposals are registered on the board, in three columns, so that it is clear which team has proposed what.

Discussion Points

– For what reason are the children upset?
– How did the two children cope with the situation?
– For what reason did each team propose the corresponding solutions?

Members of each team will have to "justify" why their proposals will have better results in this case.

– Which is the most effective way of coping with the particular situation?
– Why are there different proposals?

At this point, we must mention the way our individual differences, the specific characteristics of every individual, his/her experiences, etc. *define the way he/she will handle a situation.*

– What can we do to help when facing a stress-generating situation?

For example: think of what we can do or ask for help if we believe we cannot cope on our own, so to avoid impulsive reactions, etc.

Materials Needed

Two cardboard figures, a boy, a girl.
Sheets of paper, one for every team

Appendix 4: Thematic Unit D: Social Skills

Activity for Grades 3, 4, 5, 6

The unsociable Mr. Mayor

Goals

– Help students comprehend the importance of social skills in everyday life

Procedure

We inform the pupils that their class has been held responsible by the Highest Council of Municipalities and Communities, for the DISORDERCITY. The situation is as follows …

Mr. Unsociable is the Mayor of the DISORDERCITY. No one in this city says please or thank you. If he does, he will be punished by 10 days in prison in Mr. Eugenius' prison. No one gives his things to others and if he does, he must pay a fine of 200€ to the treasury of NONSHARING. In case someone disagrees with a friend and does not fight, but simply finds a solution through discussion, he or she is immediately taken to the Peaceful Negotiations Detoxification Center. At the Municipality Council,

Mr. Unsociable has imposed a law that says they must all speak simultaneously. Whoever dares to raise his hand must hold it up for 5 days. It is forbidden to wait in line to be served at the cafeteria which is in the main square with the clock. Whoever dares to wait in line pays his juice and toasted sandwich more expensive!

The class must appoint two committees, responsible for the difficult task of informing the Mayor but also the constituents on the consequences of such a situation. The first team will draw up a letter to Mr. Unsociable and the second will write a memorandum for the people of the DISORDERCITY about what they lose by adopting Mr. Unsociable's instructions.

Discussion Points

- How difficult is life in an environment where there are no social skills and for what reasons?
- Who benefits in the end when adopting behaviors that include social skills?

The individual, *the class*, *the school*, *the neighborhood*, *the city*, *the society*, *since through social skills we all have the possibility to develop as individuals and offer the team we belong to*, *to society*…

- How do social skills improve the life of a society?

Politeness, *cooperation*, *management of anger*, *the will to wait in line,* etc. *secure to the members of a society a better life*, *more creative*, *without distractions from enmities and frustration*, *in which society we all offer and develop*.

- How many times do we feel as citizens of this DISORDERCITY and what can we do to make it change?

Appendix 5: Thematic Unit E: Conflict Management/Bullying

Activity for Grades 3, **4**, **5**, **6**

Everybody knows….

Goals

- Help students realize that aggressiveness towards a schoolmate does not concern only those immediately involved.
- Help students realize that it is important to ask for help when we or anyone else is in danger.
- Help students understand the difference between "ask for help" and "be a snitch."

Procedure

We divide the class into three teams and we read to them the following event:

These last two weeks every time Lyda sits on the bench in the school yard to read George's and Nina's company approach her. George makes fun of her using bad taste jokes and insulting comments. Lyda asks them to leave her alone. Nina laughs. After a while George throws her book on the ground and starts stepping on it. Stratos and Dimos, who usually sit near there, see the incident and continue eating their snack. Zeta and Peter ask the others to stop and leave Lyda alone. The abusive company blackmails all the rest. Mary and Despoina who have been watching the incident decide to inform the teacher about it.

Every team must answer the following question.

Who does this incident concern?

When the students write down their answers the teams report them to the class. A discussion then follows based on the following discussion points.

Discussion Points

- Who does this incident concern? (*The whole class. Pupils are members of a wider team, their class. Since they are a team, this incident concerns all the students and their teacher*)
- What is the reason this incident concerns everyone? (*Whoever observes, participates, hears, knows, acts by watching a similar incident, he/she is a part. If someone simply watches or reacts or takes some decision does not mean that he is a stranger to this, it concerns all of them*)
- Which part is the most difficult and for what reason? (*The most difficult part is of those who choose to be simple observes and not to get involved—because they know what is happening is not correct but they choose, for their own reasons, to keep a passive position—but also the position of those who react by talking to the abusers or notifying an adultbecause they may be the target of comments, particularly those who decide to ask for help, since they can be characterized as "snitches.*"
- What is the difference between "snitching" and "calling for help" (*In the second case, we decide to protect someone who is in danger or faces a nasty situation and we want to help. The unwritten law of "I don't tell" can be applicable only when someone's security and dignity are not at stake*)

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Part III
Interventions for Clinical Populations

Chapter 15
Developing Social Competence Through a Resilience Model

Mary K. Alvord, Brendan A. Rich, and Lisa H. Berghorst

Introduction

Impaired social functioning in childhood is associated with a multitude of negative outcomes throughout youth and into adulthood—e.g., affective disorders, delinquency, academic failure, substance abuse, adult psychopathology (Parker & Asher, 1987; Rabiner, Coie, Miller-Johnson, Boykin, & Lochman, 2005; Rubin, Root, & Bowker, 2010). Much like a fever is to medical illness, social deficits are often a sign of some perturbation in psychological functioning, the origin of which may be multifold. While social deficits are ubiquitous across childhood psychopathology (Foster & Bussman, 2008), they appear to be a particularly prominent part of the clinical picture in attention deficit hyperactivity disorder (ADHD; Wehmeier, Schacht, & Barkley, 2010) and anxiety disorders (Verduin & Kendall, 2008). These diagnoses are commonly seen in children who present to therapy: nearly 8 % of children in the US between the ages of 8 and 15 are diagnosed with ADHD (Substance Abuse and Mental Health Services Administration, 2012), and the prevalence rates for anxiety disorders in youth are up to 17 % (Costello, Mustillo, Erkanli, Keeler, & Angold, 2003). High prevalence rates, in combination with the detrimental impact of social deficits, underscore the importance of identifying effective interventions to improve the functioning of these children. At the same time, impaired social functioning frequently presents hand-in-hand with a range of related difficulties, such as a tendency to be reactive, unrealistic or catastrophic thinking, poor problem-solving, low self-esteem, or a lack of self-control. Accordingly, all of these domains may need to be addressed within the context of treatment in order to improve the overall functioning of children who present with social deficits.

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In line with this multifactorial perspective, longitudinal studies have identified all of these cognitive and behavioral processes, including social competence, as key components of resilience (Masten & Wright, 2010). Although a wide range of theories and definitions of resilience exist in the literature (Fletcher & Sarkar, 2013), resilience is defined within this chapter as "those skills, attributes, and abilities that enable individuals to adapt to hardships, difficulties, and challenges" (Alvord & Grados, 2005). This definition includes not only children and adolescents who have experienced trauma (e.g., abuse or disasters), but also those who have experienced psychological difficulties (e.g., ADHD, learning disabilities, mood disorders).

Following a resilience framework, Alvord, Zucker, and Grados (2011) designed the Resilience Builder Program® (RBP®) as a comprehensive intervention aimed at improving social connections within the development of a broad range of cognitive and behavioral skills. The RBP incorporates widely accepted social skills training components (e.g., improving eye contact, initiating and maintaining conversations, understanding others' feelings and promoting empathy, sharing, and maintaining personal space; de Boo & Prins, 2007), while also teaching and enhancing "protective factors" that are recognized as fundamental to resilience (Werner & Smith, 2001). These include the following: taking initiative/being proactive, regulating one's moods and behavior, achieving goals, acquiring self-mastery, actively engaging in community activities, and having effective and proactive parents. Without these key "protective factors," fulfilling relationships and self-efficacy are generally not well sustained (Meichenbaum, 2012). Accordingly, the RBP's focus on building social competence skills within a resilience-building framework may best promote comprehensive improvement in psychosocial functioning. At its core, the RBP is a strength-centered, rather than a deficit-driven, program designed to build resilience skills that will put youth on a trajectory toward success, fulfillment, and mental health throughout life (Alvord, Zucker, & Grados, 2011).

This chapter begins with a discussion of the specific types of psychosocial deficits seen in children with ADHD and anxiety disorders. Evidence that supports using a comprehensive strength-focused treatment model to build social competence within a broader resilience-based framework is provided. The RBP is described in detail, including the five main structural components: (1) the interactive-didactic component, (2) free play and behavioral rehearsal, (3) relaxation and self-regulation techniques, (4) parent involvement, and (5) generalization to natural settings. The importance of implementing and evaluating the RBP within a real-world clinical practice setting is highlighted. Finally, a preview of the empirical data collected to date on the effectiveness of the RBP is presented.

Psychosocial Deficits in ADHD

In some youth, social deficits may reflect behavioral, or externalizing, problems. For example, children and adolescents with ADHD might have difficulty with peer relations due to their impulsivity and hyperactivity. Youth with ADHD often engage

in troublesome social behaviors, including impulsivity, intrusiveness, disrupting others' play, and aggression (Barkley, 2006; Wehmeier et al., 2010). At the same time, they display fewer prosocial behaviors, such as sharing, turn taking, and cooperation (Barkley, 2006; Wehmeier et al., 2010). Primary factors underlying their impaired social interactions include being more emotionally reactive, more easily frustrated, and less able to regulate emotional responses than non-ADHD children (Hoza, Pelham, Waschbusch, Kipp, & Owens, 2001; Norvilitis, Casey, Brooklier, & Bonello, 2000; Scime & Norvilitis, 2006; Walcott & Landau, 2004; Wigal et al., 1998). These deficits result in markedly impaired peer relationships: children with ADHD have fewer dyadic friendships as compared to their peers, with 80 % of 7–9-year-old children diagnosed with ADHD classified as rejected, and 99 % considered unpopular (Hoza et al., 2005). Not surprisingly, such limited reciprocal friendships are strong contributors to lower levels of psychosocial functioning and overall well-being in youth with ADHD (Hoza et al., 2005; Wehmeier et al., 2010). Moreover, social deficits in these youth, such as an inability to read others' nonverbal cues, are often accompanied by broader behavioral problems consistent with a lack of self-control. In fact, ADHD is often accompanied by pervasive deficits in multiple domains of functioning, including emotional, behavioral, academic, and family systems (American Academy of Pediatrics, 2000; Barkley, 2006; Cunningham, 2007; Faraone et al., 1993; Fletcher & Wolfe, 2008; Wolraich, Hannah, Baumgaertel, & Feurer, 1998).

Psychosocial Deficits in Anxiety

In contrast to the link with externalizing problems, social deficits can also reflect affective, or internalizing, problems in some youth. For example, problematic peer interactions may reflect internalizing difficulties characteristic of anxiety disorders, including being excessively shy and withdrawn (Verduin & Kendall, 2008). These youth, as compared to non-anxious children, are reported to be less well liked, and more actively disliked and ignored, by their peers (Chansky & Kendall, 1997; Spence, Donovan, & Brechman-Toussaint, 1999; Strauss, Frame, & Forehand, 1987); consequently, they have an increased risk of peer victimization (Crawford & Manassis, 2011). They struggle to initiate interactions, spend less time interacting with peers, and receive less positive feedback from peers than controls (Spence et al., 1999). In line with these findings, youth with anxiety disorders have difficulty making friends and their friendships tend to be characterized by lower companionship and support (La Greca & Lopez, 1998; Scharfstein, Alfano, Beidel, & Wong, 2011). These deficits may in part stem from a pervasive unfounded fear of negative evaluation which increases avoidance of social situations, subsequently limiting opportunities to engage in and practice effective social interactions (Cartwright-Hatton, Tschernitz, & Gomersall, 2005; Tuschen-Caffier, Kuhl, & Bender, 2011). Furthermore, distorted and biased processing of social information (e.g., selective attention to threatening information, negative misinterpretations of social

situations) may contribute to the social deficits seen in youth with anxiety disorders (Clark & McManus, 2002; Hirsch, Clark, Mathews, & Williams, 2003; Muris, Merckelbach, & Damsma, 2000). Finally, it is important to note that in addition to social difficulties, youth with anxiety disorders are at risk for impaired academic performance, family dysfunction, comorbid diagnoses, and psychopathology into adulthood (Aschenbrand, Kendall, Webb, Safford, & Flannery-Schroeder, 2003; Verduin & Kendall, 2003; Woodward & Fergusson, 2001).

In sum, youth with ADHD and anxiety disorders present with marked impairments in social competence and peer relationships. However, the factors that drive their social struggles may reflect opposite ends of the externalizing–internalizing symptom spectrum. Whereas ADHD youth tend to struggle socially because of their externalizing symptoms (e.g., hyperactivity, impulsivity, intrusiveness), the social struggles of anxious youth typically reflect their withdrawal, lack of assertive behaviors, difficulty initiating interactions with others, and lower perceived self-worth (Ginsburg, La Greca, & Silverman, 1998). At the same time, it is not uncommon for children to present with difficulties across both sides of this spectrum. Moreover, these social deficits tend to occur within the broader context of impairments across multiple domains of functioning. Accordingly, when conceptualizing an intervention for children who struggle socially and present with a range of internalizing or externalizing symptoms, a broad resilience-based approach to social competence might have the greatest positive impact across the largest number of affected youth.

The Benefits of a Comprehensive Intervention Model

Risk and Protective Factors

The level of an individual's resilience is best understood as a complex and dynamic interaction between "risk factors" and "protective factors" that enable him or her to adapt to stress and challenges (Bowman, 2013; Werner, 2013). Risk factors may change over time and include learning disabilities, poor peer relationships, socioeconomic hardships, family dysfunction, and trauma. Conversely, protective factors are defined as "influences that modify, ameliorate, or alter a person's response to some environmental hazard that predisposes to a maladaptive outcome" (Rutter, 1985, p. 600). These factors may be "internal" to the child, such as temperament or a desire to make friends. Alternatively, they may be "external" to the child, emanating from a supportive family, caretaker, educational system, or community at large. Many of these factors are interrelated and may be influenced by a person's culture or developmental stage—e.g., racial identity, faith and religious orientation, age, and school grade (American Psychological Association, Task Force on Resilience and Strength in Black Children and Adolescents, 2008; Fenning & Baker, 2012; Romer, Ravitch, Tom, Merrell, & Wesley, 2011).

A Comprehensive Approach to Developing Social and Personal Effectiveness

The RBP comprises a 12- to 15-session per semester group curriculum that develops multiple protective competencies in children and adolescents. Alvord and Grados (2005) organized the protective factors into six broad areas: (1) a proactive orientation toward life; (2) the ability to regulate one's attention, emotions, and behavior for improved self-control; (3) social connections and attachments; (4) development and acknowledgment of special talents; (5) a strong community; and (6) proactive parenting. Interventions that incorporate these protective factors into the child's repertoire form the basis of the RBP. More specifically, the model applies evidence-based cognitive behavior therapy (CBT) strategies to build and develop skills across the aforementioned domains. Therefore, although social skills development is an inherent part of the model, the RBP is a much more comprehensive program rooted in fostering a range of interrelated protective factors.

Proactive Orientation

A fundamental determinant of resilience in youth is being proactive. Within the RBP, the term proactive is broadly conceptualized as described in Alvord and Grados (2005). It includes believing in one's ability to influence his or her life (self-efficacy), and taking initiative (e.g., asking for assistance when it's needed), which allows a child to be confident and meet challenges (Lee, Kwong, Cheung, Ungar, & Cheung, 2010; Luthar & Cicchetti, 2000; Werner & Smith, 2001). In children, a proactive orientation means understanding that while they cannot control every aspect of their lives, they can exercise their ability to solve problems and take action (Bandura, 1997; Schwarzer & Warner, 2013). In this way, although they might not be able to control the outcome of certain situations, they still have power over how they choose to think about and how they choose to approach those situations. Thinking in a positive yet realistic way, developing positive emotions, and generating multiple solutions to challenges, all key components of a proactive orientation, contribute to an optimistic outlook and greater overall satisfaction in life (Cohn, Fredrickson, Brown, Mikels, & Conway, 2009; Hutchinson & Pretelt, 2010; Seligman, Reivich, Jaycox, & Gillham, 1995).

Self-Regulation

Broadly defined, self-regulation is the ability to control one's attention, behavior, and mood (Masten & Coatsworth, 1998). The RBP trains children and adolescents to identify and change negative social behaviors and to modulate their thoughts and moods for improved self-control. In addition to the ability to calm oneself, self-control also involves the ability to delay gratification and regulate impulses,

emotions, and interactions with others (Masten & Wright, 2010). Mastery of these skills is central to later development of more complex social and cognitive skills (Calkins & Marcovitch, 2010). Longitudinal studies have confirmed the critical impact that self-control in young children can have on functioning as adults—with regard to their health, educational attainment, financial security, and prosocial orientation (Moffitt et al., 2011; Werner, 2013). Some of the evidence has shown that children who increased their self-control by early adulthood (as indicated by a composite measure of self report and other report forms) experienced improved outcomes in the aforementioned domains by age 32 (Moffitt et al., 2011).

Connections and Attachments

Prosocial peer relationships and healthy connections and attachments to family are paramount to overall well-being and happiness (Hill, 2012; Masten & Coatsworth, 1998; Prince-Embury, 2013). In fact, decades of longitudinal studies led Luthar (2006, p. 780) to conclude that "resilience rests, fundamentally, on relationships." Studies have indicated that preschool children who have the ability to process social information and relate well to peers are more likely to exhibit school readiness (Ziv, 2013). Furthermore, having as few as one or two close friends can protect against bullying and set a positive trajectory for later wellness and adjustment (Mikami, 2010). Several factors contribute to a child's ability to connect with family and friends. These include learning how to: reciprocate in conversation and behavior, initiate and react with prosocial behaviors, and interpret and respond to social cues (Bierman, 2004). All of these fundamental inter-relational skills are taught and rehearsed throughout the RBP (see section on "The Nuts and Bolts of the RBP").

Special Interests and Talents

Recognizing children's strengths is a core principle of the RBP program. Brooks (1994) has articulated the benefit to children of having "islands of competence" as a way to enhance resilience. Feeling capable can lead to a stronger positive self-identity, a willingness to try new things, and deeper connections with others. For example, those who gain a sense of success from participating in sports or academics are more apt to be confident and engaged in school and friendships.

Community

Even when children grow up in dysfunctional or ineffective families, supportive relationships with teachers or other adults can provide children with a sense of stability and positive role models that promote resilience and better outcomes in life (Werner & Smith, 2001). The skills developed within the RBP provide children with the tools needed to reach out and form such relationships. At the same time, it calls on parents to provide opportunities for school and community activities.

Proactive Parenting

Parents who are loving and supportive, while being authoritative and consistent in their expectations and discipline, are more likely to raise resilient children (Baumrind, 1991; Kim, Chen, Wang, Shen, & Orozco-Lapray, 2013). The behavioral adjustment of these children and their relationships with family and peers tend to be best (Armstrong, Birnie-Lefcovitch, & Ungar, 2005). Studies have shown that training parents to apply positive discipline methods by teaching their children problem-solving and self-regulation skills promotes positive outcomes and resilience (Borden, Schultz, Herman, & Brooks, 2010). The children of parents who use more "process praise" demonstrate more consistent performance on challenging tasks, even 5 years later (Gunderson et al., 2013). "Process praise" is defined as positive comments about the effort a child makes, rather than simply general praise about the child. Reinforcing "effort" is consistently underscored with the children and parents participating in the RBP (Alvord, Zucker, & Grados, 2011). Integrating parents into treatment provides them with skills and social support as well, thereby increasing the whole family's resilience (Armstrong et al., 2005; Walsh, 2006).

The Nuts and Bolts of the RBP®

The RBP® is a resilience-based social competence group therapy curriculum for children and teens. The RBP was originally developed in 1992 by Mary Alvord, Ph.D., and designed for application in a clinical setting. The program evolved over the years to its present curriculum, which is published in a formal treatment manual (Alvord, Zucker, & Grados, 2011). The program is founded on factors known to promote resilience in combination with elements known to facilitate successful social interaction. CBT is the primary underlying therapeutic approach (Kendall, 2006), with a "systems" model (Goldstein & Martens, 2000) integrated throughout the RBP. Accordingly, parents and significant caregivers are incorporated into the treatment. Ideally, treatment is also coordinated with school and community resources, given parental or legal guardian permission. With adaptations, the RBP can be used across a variety of settings beyond clinical group therapy, including schools, individual, or dyadic therapy.

Target Population of the RBP

Children typically referred to the program have difficulty with self-regulation, conversing with peers, and playing reciprocally. They might "annoy" others by being bossy or loud, losing their temper, or invading others' personal space. Conversely, they might be shy, passive, or avoidant of peers and social situations. It is common for children who present to the RPB to exhibit a combination of these behaviors along with difficulties regulating their attention, behavior, or moods. For example,

they might present with ADHD, a mood disorder and learning challenges. A common denominator is that these children usually have very few friends, if any, but they desire friendships. Even if they are able to make a friend in the short-term, sustaining friendships is often an enormous challenge.

The RBP places members based on a description of their strengths, weaknesses, skills, and performance, rather than simply by diagnosis. For group cohesion and maximum mastery of the lessons, members' difficulties should be similar enough that the group can sufficiently address their particular needs and that members feel a sense of connection (i.e., they are not "alone" in their struggles). At the same time, groups work best when members' strengths are different enough that they can learn from one another through the modeling of desired behaviors. Therefore, we group together children who present with a range of diagnoses, including ADHD, anxiety disorders (e.g., social anxiety and generalized anxiety disorder (GAD)), and comorbid clinical presentations, precisely so that they can serve as models for one another. Consequently, socially anxious children can observe others speaking in front of the group without negative consequences; group members with ADHD have the opportunity to interact with peers who can stay focused.

A limited number of children with higher functioning autism spectrum disorder (ASD) are also included in the mainstream groups. Additionally, some groups are specifically formed to include only ASD children and teens who require special modifications to the curriculum. Group members might also have learning disabilities or learning differences and executive functioning challenges. In treating members and interacting with their families, it is essential to take these individual processing differences into account, along with any differences in cultural norms, family configurations, or environmental contexts. Discussions, interactions, and role-plays can be adjusted to be sensitive to these differences. Children and teens who would not be appropriate for the RBP model include those who are of significantly below average intellectual capability or exhibit severely aggressive or conduct disordered behavior. Multiple research studies suggest that grouping together children with severe behavioral problems may lead to ineffective treatment, or could even exacerbate the issues with detrimental results (Dishion, McCord, & Poulin, 1999; Dishion & Tipsord, 2011).

The Structure of the RBP

The RBP program is designed for a typical duration of 12 weekly sessions per semester during the school year, with an optional course of 6 weekly sessions over the summer. Two consecutive semesters (for a total of 24–28 sessions) of attendance are recommended for maximum benefit. The model can be adapted to variable lengths of time or to mixed structures (see Alvord, Zucker, & Grados, 2011). Groups usually include four to six members with one leader, and typically comprise the same gender and comparable ages (since 3rd–8th grade children tend to socialize predominantly with peers of the same age and gender). The program is designed for

groups from kindergarten age through high school. Although session topics generally remain the same for all age groups, the sophistication of the content and activities is adapted to be developmentally appropriate (see below sections on "Adaptations and Modifications for Younger Children" and "Adaptations and Modifications for Teens"). The model consists of five main structural components within each session: (1) the interactive-didactic component; (2) free play and behavioral rehearsal; (3) relaxation and self-regulation techniques; (4) parent involvement; and (5) generalization to natural settings. Below is a brief summary of the highlights of these components; please see the RBP manual (Alvord, Zucker, & Grados, 2011) for a more detailed discussion.

The Interactive-Didactic Component

Resilience and social skills topics are taught in an interactive manner throughout the RBP: clinicians present the material, elicit discussion, and provide demonstrations. For example, resilience is explained with the aid of a rubber band, which stretches when exposed to added stress and "challenges." Members describe different challenges that "add to" the stretching while visually observing that the rubber band becomes taut and rigid as it expands. The group then discusses strategies to cope with the challenges they face in their daily lives, while watching the rubber band slowly return to its original shape. The key notion being transmitted is that instead of being stretched to the breaking point, the rubber band can return to normal elasticity and flexibility, much in the same way that coping skills can help children "bounce back" from stressors without "breaking." This leads to a conversation about being proactive, taking initiative, and coming up with preemptive plans versus being reactive or passive. These concepts are central to the program and practiced throughout the sessions.

Another example of an interactive-didactic lesson is the session on cognitive distortions. The leader uses a magnetic dartboard to demonstrate what we call "on the mark" versus "off the mark" thinking about a challenge or perceived failure (e.g., initiating a conversation with a new peer or receiving a low grade on a test). "On the mark" thinking ("I can just ask him a question" or "It's not the end of the world, and I can do better next time") represents a bull's-eye, whereas a thought like "He'll think I'm stupid!" or "I'll never get this right!" would fall very wide of the mark. Grasping the initial concept leads to discussion and demonstration of what "off the mark" thinking entails (e.g., "all-or-none" thinking, "filtering," or "catastrophizing"). Group members offer their ideas and provide examples of "on the mark," slightly "off the mark," and way "off the mark" thinking, using a dartboard to illustrate. This helps to make the concept concrete and the learning fun for the children. At the same time, having the children present their own examples and explain them to others helps to solidify their understanding and the ability to recognize cognitive distortions in their daily lives.

To address the topic of maintaining conversations, members might create a reciprocal conversation by throwing soft balls back and forth. Participants might also

draw a picture of two people listening, while taking turns speaking, and another picture of people talking at the same time. Role-plays are often created by the leader based on situations that parents report to have occurred during the week (without any identifying information).

Two additional critical parts of the interactive-didactic component are the "social competence and self-regulation goal" and the "success journal." In order to further customize the program, each child (with parental input) selects a specific and measurable individual goal to work toward throughout the timeline of the program. For example, one might choose to work on being more proactive in conversations by starting a conversation with a peer three times a week. Another might choose to try three strategies for calming down when upset. For each goal, several strategies are developed that can be "tried out" in various contexts (e.g., home, school, extracurricular activities). The Success Journal, located under a specific tab in the program notebook, is where successive approximations toward the goal are documented, and where any positive interaction or activity that required effort would be recorded. This provides each child the ability to focus on his or her area of greatest need, while noting the small steps of progress made and discussing areas of strengths.

Free Play and Behavioral Rehearsal

Following the interactive didactic component, the group moves to "free" play or activity. The purpose of free play is to offer a real-life recreational activity where the children can practice skills learned. Because no child is allowed to play alone, a structured process of negotiation is required, such as taking turns or compromising. The children view the play as a fun and natural activity. The younger children might choose to play with figures (e.g., superheroes, dolls) or Legos, while the older children might choose to play cards or board games. The group leader is able to observe the interactions and, as necessary, intervene and encourage "problem-solving." Providing real-time immediate feedback allows for "behavioral rehearsal" of more appropriate behaviors, which is essential to behavior change.

Relaxation and Self-Regulation Techniques

The final portion of each session is dedicated to practicing self-regulation techniques. The ability to regulate attention, moods, and behaviors represents a key ability of resilient individuals. Good self-control in childhood predicts better mental and physical health, socioeconomic status, and socially acceptable behavior as adults (Moffitt et al., 2011). Other longitudinal studies find that self-control is correlated with school grades and life balance (Kuhnle, Hofer, & Killian, 2012). During each session, a single self-regulation technique is taught and practiced together, such as calm breathing, progressive muscle relaxation, self-talk or guided imagery.

The leader can use either printed scripts (Alvord, Zucker, & Alvord, 2011) or recordings (Alvord, Zucker, & Alvord, 2011, 2013). A variety of techniques are offered throughout the semester, so that each child can master several techniques, and can draw from this set the skill that he or she has found to be most helpful. As the sessions progress, children are asked to lead their favorite relaxation technique for the rest of the group.

Parent Involvement

Parental involvement is critical to the child's mastery of the skills in his or her repertoire. Parents receive a weekly letter, placed in their child's folder or emailed, that focuses on the topic of each session. The letter provides tips on how to reinforce the skills at home and explains the Resilience Builder homework assignment. Each month, parents are also invited to join the group for part of the session so that the children may share what they have learned over the past few weeks. Each child selects a topic to present and demonstrates the concept or behavior for the group. Props and pictures are provided that support the child's presentation. This is especially important for shy or socially anxious children, as this constitutes an exposure to speaking in front of a group of peers and adults, a situation that they might typically avoid. Finally, parents meet with the group leader midway through the program to review their child's progress and discuss concerns. Such comprehensive engagement in the RBP process equips parents with the awareness to catch both detrimental and productive behaviors at home. They also gain the vocabulary necessary to communicate with their child about, and reinforce, key concepts from the program.

Generalization

Social competence and resilience imply the application of skills, positive thinking, problem-solving, and adaptive behavior, not simply the acquisition of knowledge. The primary aim of this program is to generalize what is learned in the group to the natural settings of home, school, and community, in order to display better daily social functioning and self-regulation. Correct and frequent practice of multiple approaches in a variety of situations and settings is key to successful generalization (Goldstein & Martens, 2000). Multiple strategies are integrated into the program to achieve this aim. Each child is provided with a program notebook—with tabs for group activities, resilience builders (homework assignments), and a success journal. "Resilience Builder" homework is assigned weekly to reinforce both knowledge and practice of the skills taught during the previous session. In addition, through the weekly parent letters, discussion of the weekly assignment, and monthly observations, parents also learn what is being taught so they can reinforce these concepts and skills at home. Importantly, the group context inherently provides a microcosm

of naturally occurring situations between peers that fosters learning generalizable to other social gatherings. Moreover, asking members to explain and demonstrate skills in groups reinforces the behaviors, builds mastery of the skills, and leads to a higher probability of generalizing them outside of the office. For example, midway through the program, children lead the group in relaxation exercises which reinforces their comprehensive understanding of the techniques. Along these lines, a field trip is taken each semester to practice sportsmanship and group skills in a public setting, such as a bowling alley or a mini-golf park. Given parental permission, clinicians may also collaborate with appropriate school personnel and other therapists (e.g., OTs, speech and language therapists, individual or family clinicians) to further extend application of skills outside the group.

Behavior Management

Running a successful group with children and teens requires providing adequate structure and effective behavior management. Clear expectations are established from the first session, and are reinforced in multiple ways. During the first group session, children are led to discuss the ways in which they can be good group members to each other and they collectively come up with a list of "group rights and rules to get along." At the beginning of each session, group members are invited into the group room after an appropriate greeting and showing good self-control. Of great importance, verbal praise and differential attention and reinforcement are used liberally and consistently throughout sessions. For example, if a child is disruptive while another child is speaking, we might ignore that behavior, and enthusiastically praise another member who is modeling the ideal behavior (e.g., sitting calmly and attending to the speaker).

The RBP builds in a point system for weekly participation and completion of homework assignments (e.g., bringing in the program notebook, writing or dictating an entry in the success journal, completing the weekly assignment, and discussing it in group), as well as general cooperation during the sessions. Leadership Awards are given each session to acknowledge a member who completed all assignments and demonstrated good leadership qualities (in line with a list generated by group members in earlier sessions).

Adaptations and Modifications for Younger Children

Each group needs to be developmentally appropriate. While the published curriculum is primarily designed for children in grades 3 through 8, groups are easily adapted for those in kindergarten through high school. For younger children, using simpler language and displaying more concrete props are most helpful. Language demands may be reduced through increased activities and "pretend" role-plays,

instead of discussion; role-plays are also more scripted with this age group. Puppets, books, and storytelling are incorporated to teach and model desired behaviors (Alvord & O'Leary, 1985). Behavior management techniques include redirecting less appropriate behavior by assigning a desired task, and providing frequent, visual, tangible, and varied reward charts and systems. Relaxation exercises are shortened and might include the "turtle" (Robins, Schneider, & Dolnick, 1977), blowing bubbles for calm breathing, or short versions from recordings of *Relaxation and Self-Regulation Techniques for Children and Teens* (Alvord, Zucker, & Alvord, 2011) or *I Can Relax* (Pincus, 2001).

Adaptations and Modifications for Teens

The basic structure of the groups remains for teens, although there is more time dedicated to discussion and role-plays, and less time spent on "free play" games. Some topics are amended to be more applicable to the daily situations faced by adolescents. For example, initiating and maintaining conversations might include discussion of social media and texting or speaking with someone you find attractive. High school is often a time marked by both internal and external physiological changes; therefore, topics might address building self-esteem and learning to be comfortable with one's own unique self-identity. Another topic commonly addressed is how to handle peer pressure and make good decisions in the face of difficult choices that often arise during high school. For relaxation, recordings from Relaxation and Wellness Techniques (Alvord, Zucker, & Alvord, 2013), as well as appropriate music downloaded by the teens, are utilized.

Implementation of the RBP in a Real-World Setting

Implementing and empirically evaluating treatment protocols in real-world clinical practice settings is an inherently challenging but critical endeavor. It is an essential step in order to reach the goal of widespread use of feasible and effective treatments in every day clinical practice. Effectiveness studies using real-world clinical populations and settings are particularly valuable because they often differ in meaningful ways from academic research settings and the populations typically recruited for efficacy studies. Consistent with the Mental Health Systems Ecological (MHSE) model proposed by Southam-Gerow, Ringeisen, and Sherrill (2006), these differences span across multiple factors that may influence treatment outcome, including those related to the child and family, therapist, organization, and service system levels. Below, we highlight a few of the differences that may be particularly relevant to the RBP (for a more comprehensive discussion, please see Schoenwald & Hoagwood, 2001; Southam-Gerow, Rodriguez, Chorpita, & Daleiden, 2012).

On the individual level, youth who present for therapy with the RBP may differ significantly from those who participate in efficacy studies with regard to severity or

complexity of clinical presentation. In a research clinic context, children are typically eligible based on a narrowly defined diagnostic presentation, whereas those who seek services in real-world clinical settings often present with complex comorbid diagnostic presentations (Ehrenreich-May et al., 2011). For example, youth with ADHD often additionally meet criteria for learning disabilities and anxiety disorders. Socioeconomic status is another child/family level factor that may influence the translation to clinic settings of evidence-based treatments developed in university settings (Southam-Gerow et al., 2012). In addition to SES, the motivations and expectations for treatment may also be different between RBP clientele who are directly paying for services and those getting paid to participate in a research-based treatment study.

The significant therapist level differences documented between research and practice settings (Weisz, Southam-Gerow, Gordis, & Connor-Smith, 2003) represent another particularly salient aspect to highlight with regard to the RBP. Whereas therapists involved in laboratory-based research studies are often graduate students, the RBP is led solely by licensed psychologists and clinical social workers. This difference encompasses variability across theoretical orientation, amount of supervision, size of caseload, productivity demands, and attitudes toward evidence-based treatments (Southam-Gerow et al., 2012). Some of these factors inevitably also impact service delivery characteristics. For example, as compared to an academic research context, the frequency and length of sessions may be more limited in a real-world practice setting due to time commitment and availability constraints, in combination with financial obligations of the client.

Given the aforementioned discrepancies, it is not entirely surprising that the limited number of studies that have taken laboratory-validated treatment protocols and examined them in clinical settings yield mixed results (e.g., Southam-Gerow et al., 2010; Weisz et al., 2012). A broad review of youth psychotherapy outcome research found overall clinical representativeness—with regard to clinically referred youth, practicing clinicians, and clinical service settings—to be only about 1 % (Weisz, Doss, & Hawley, 2005). Taken together, these lines of research clearly highlight the need for more research in real-world clinical settings. The RBP studies currently underway seek to provide data directly relevant to filling this gap.

The research being conducted on the RBP approaches this need from a unique direction because the program was initially devised in a real-world therapy practice setting by clinicians trained in evidence-based treatments. Accordingly, the feasibility of implementing the RBP in a clinical practice setting was integral to its development, and the empirical evaluation of the program has been a secondary goal following the subjectively observed success of the program. In this way, many of the concerns with regard to translating laboratory-based protocols to real-world settings (e.g., diagnostic complexity of cases, cost and time commitment involved) were taken into consideration in the design of the RBP and thus do not act as potential barriers. In contrast to studies conducted in a research setting, the RBP provides valuable data that speaks to the external validity of a CBT-based program in a clinical practice setting. Demonstrating effectiveness in this setting could have vast implications not only with regard to the generalizability of treatment programs such as the RBP, but also for providing real-world evidence to clinicians who may be hesitant about applying evidence-based treatments only tested in a research setting.

Preliminary RBP Treatment Outcome Findings

Over the past few years, Alvord, Baker, & Associates private therapy practice has collaborated with a research institution, the Catholic University of America, to conduct an IRB-approved investigation of the effectiveness of the RBP. All families with children 7–12 years old enrolled in the RBP were invited to participate in the study. Thus, all participants received the RBP therapy; of note, they were allowed to receive other forms of intervention, consistent with the multi-treatment presentation of most youth seen in clinical service settings. The invitation to participate in research was presented during the intake appointment routinely conducted to determine each child's appropriateness for RBP groups. Parents were asked to indicate their willingness to be contacted for research, and those who expressed interest were sent a letter with consent and assent forms for review. Research assistants also contacted families via phone to discuss the research study. Thereafter, signed consent and assent were obtained at the child's first group RBP session. Families were given 2 weeks to complete their pre-therapy measures, and post-therapy data was collected up to 2 weeks following treatment completion. Each child who participated was given a $20 gift certificate upon completion of both pre- and post-therapy measures. In a previously published study, Rich and colleagues reported that 76 % of eligible families chose to enroll in the study, and 73 % of those who provided pre-therapy data gave complete datasets by providing post-therapy data as well (Rich et al., in press).

Currently, our research program has collected therapy outcome data from over 200 youths enrolled in the RBP. Broadly speaking, children eligible to participate in the RBP have prominent social impairments, as determined during the psychological intake assessment noted above. More specifically, within the group of children participating in the research study, approximately 72 % have ADHD, 37 % have an anxiety disorder (e.g., generalized anxiety disorder, social anxiety disorder), and 15 % have a high functioning ASD. Our assessment battery, completed by children, parents, and teachers, provides both a broad and targeted assessment of each child's psychosocial functioning. All three informants complete the Behavior Assessment System for Children, Second Edition (BASC-2) (Reynolds & Kamphaus, 2004), a broad measure of internalizing and externalizing functioning, and the Social Skills Improvement System-Rating Scales (SSIS-RS; (Gresham, Elliott, Cook, Vance, & Kettler, 2010), a measure of multiple domains of social competence. Parents and children complete the Screen for Child Anxiety Related Disorders (SCARED, Birmaher et al., 1999). Parents also complete the Family Assessment Device (FAD) (Epstein, Baldwin, & Bishop, 1983; Miller, Epstein, Bishop, & Keitner, 1985), the Brief System Inventory (BSI) (a measure of parental psychopathology) (Derogatis & Melisaratos, 1983) and an in-house demographic questionnaire. Children also complete the How I Feel Scale (HIF), a measure of emotional intensity and control (Walden, Harris, & Catron, 2003), and the Resiliency Scales for Children and Adolescents (RSCA; Prince-Embury, 2007), which assesses multiple domains of resilience, including relatedness (trust, support, comfort, tolerance), sense of mastery (optimism, self-efficacy, adaptability), and emotional reactivity (sensitivity, recovery, impairment). The battery of rating scales takes approximately 30–45 min to complete.

A series of analyses yield preliminary support for the overall effectiveness of the RBP. First, in youth with ADHD, completion of the RBP improved social competence, self-control, and emotion regulation, while it reduced externalizing problems, hyperactivity, impulsivity, and negative emotions. These positive outcomes were observed by multiple informants (i.e., parent, child, and teacher report) across multiple contexts (i.e., with peers, at school; Rich et al., 2014). For example, on the SSIS, parents endorsed improvement in their children's overall social skills following RBP therapy ($t=-3.32$, $p=.003$), parents and teachers reported significant decreases in their children's problem behaviors ($t=3.30$, $p=.003$; $t=2.81$, $p=.01$), children endorsed significant reductions in overall externalizing symptoms ($\chi^2=11.05$, $p=.001$), while parents, children, and teachers all reported improved self-control ($\chi^2=6.46$, $p=.01$; $\chi^2=13.10$, $p=.001$; $\chi^2=8.47$, $p=.01$). Finally, parents and children both reported improvements on the SSIS measure of hyperactivity/inattention ($\chi^2=7.96$, $p=.01$; $\chi^2=35.82$, $p<.001$). In addition, both parents and children reported significant decreases in internalizing symptoms after RBP therapy ($\chi^2=33.73$, $p<.001$; $\chi^2=18.56$, $p=.001$). Finally, on the HIF scale, children reported a lessening of negative emotions ($t=3.13$, $p=.005$) and enhanced emotion control ($t=-2.92$, $p=.01$) post-therapy.

Secondly, in youth with anxiety disorders, the RBP resulted in significant improvement in child, parent, and teacher reports of social functioning, positive emotions, emotion regulation, and family functioning, with reduced depressive symptoms (Watson, Rich, Sanchez, O'Brien, & Alvord, in press). For example, in terms of social functioning, both parents and teachers reported significant improvements in BASC-2 ratings of children's problem behaviors [$t(13)=2.38$, $p=.03$, and $t(5)=3.03$, $p=.03$, respectively], and teachers endorsed significant improvement in functional communication [$t(5)=4.33$, $p=.01$], developmental social disorders [$t(5)=2.79$, $p=.04$], and atypical behaviors [$t(5)=3.89$, $p=.01$], along with improved resilience [$t(5)=-3.27$, $p=.02$]. With regard to emotional functioning, parents reported significant improvement in BASC-2 depression [$t(14)=2.42$, $p=.03$], and teachers reported significant improvement in children's overall internalizing problems on both the BASC-2 [$t(5)=3.58$, $p=.02$] and SSIS [$t(5)=3.56$, $p=.02$]. Similarly, on the HIF, children reported significantly greater positive emotions [$t(14)=-2.23$, $p=.04$], reduced negative emotions [$t(14)=3.00$, $p=.01$], and improved emotional control [$t(14)=-2.64$, $p=.02$] following RBP treatment. Finally, parents reported significant improvement in family communication [$t(14)=2.20$, $p=.05$] and behavioral control [$t(15)=3.31$, $p=.01$]. This is the first study to find that group psychotherapy improves the social and family functioning of youth with anxiety disorders treated in a private clinical setting.

Finally, in youth with autism, following RBP treatment, parents endorsed improvement in their children's social skills and affective functioning, and children endorsed less negative emotion and increased emotion regulation (Aduen, Rich, Sanchez, O'Brien, & Alvord, in press). Specifically, on the SSIS, parents reported that their children had significantly higher levels of adaptive social skills [$t(8)=-2.59$, $p<.05$], communication [$x^2(1)=3.75$, $p<.05$], engagement [$x^2(1)=4.29$, $p<.05$],

and responsibility [$t(9) = -3.25$, $p < .01$]. Further, on the HIF, children reported significantly greater emotion control [$t(7) = -2.34$, $p < .05$], and less negative emotionality [$t(7) = 2.80$, $p < .03$]. To our knowledge, this is the first effectiveness study of psychotherapy in youth with autism.

We also conducted paired-samples *t*-tests to compare pre- and post-therapy scores on parent and teacher ratings on the BASC-2 resilience scale, and child ratings on the RSCA. With regard to the BASC-2 resilience subscale, we have collected data from a total of 147 parents and 67 teachers. Comparison of pre- vs. post-therapy BASC-2 parent report of resilience indicated a significant improvement in children's resilience following treatment with the RBP ($t = -2.16$, $p = 0.03$). In contrast, although teacher report on the BASC-2 resilience subscale did show improved resilience functioning in youth following RBP, this change was not significant.

With regard to the RSCA, we have collected data from 39 youths to date. The average age of this sample is 10.02 (±1.15) years old, and 76.9 % are male. The sample is narrow in diversity: 92.3 % of participants are Caucasian and 89.7 % live with both biological parents. Thus, the cultural generalizability of our results is limited. With regard to the clinical presentation of the youth participants, 77.1 % of the sample has a diagnosis of ADHD, 22.9 % has a diagnosis of GAD, and 61.5 % of the sample is currently medicated. Comparison of pre- vs. post-therapy scores on the RSCA indicated a significant improvement in multiple scales of resilience functioning following RBP therapy. Specifically, youth reported significant improvements in the relatedness index ($t = -2.14$, $p = 0.04$), as well as three of the four relatedness subscales: trust ($t = -2.07$, $p = 0.04$), comfort ($t = -2.11$, $p = 0.04$), and tolerance ($t = -2.09$, $p = 0.04$). Youth also reported significant improvement on the resource index ($t = -2.52$, $p = 0.01$), and the self-efficacy subscale ($t = -2.33$, $p = 0.02$). Changes in *T*-scores on the relatedness scale (5.28) and resources index (5.51) both exceeded the 5-point change that is considered to reflect significance (Prince-Embury, 2007).

In sum, exploratory analyses suggest that participation in the RBP results in improved resilience. Parents endorse significant improvement on the single subscale in our battery that measures parent-report of resilience functioning. These results suggest that youth who complete the RBP are better skilled at utilizing both internal and external support systems to reduce their stress and overcome daily challenges and frustrations (Reynolds & Kamphaus, 2004). At the same time, children endorse improved functioning on multiple domains of resilience. Their self-report data indicate that participation in the RBP leads to the strongest improvements in the relatedness domain. Overall, data suggest that youth feel more securely connected to individuals in social situations; in particular, they feel more trusting of and accepted by others, more at ease with meeting new people and making friends, and more safely able to express differences within their relationships. Youth also express improved confidence in their own abilities and competence, a higher degree of persistence when challenged, and a belief in their own positive strengths. Collectively, these responses suggest improved social competence, social relatedness, and problem-solving skills.

Conclusion

The RBP® is a comprehensive intervention designed to build social competence within a broad resilience-based framework. Given the high prevalence rates of youth with social deficits and mixed diagnostic presentations (Verduin & Kendall, 2008; Wehmeier et al., 2010), the RBP aims to address this significant demand for services. It does so by incorporating the principles of resilience with cognitive behavioral techniques to improve social functioning while at the same time building protective competencies (e.g., self-regulation, proactive orientation) that generalize to naturalistic settings. Importantly, this group intervention was designed by clinicians in a real-world practice setting as a strength-centered, rather than deficit-driven, program. It is a flexible program that can be adapted to variable lengths (e.g., for utilization by school counselors), age ranges (kindergarten through 12th grade), and diagnostic presentations (e.g., ASDs) beyond those discussed in this chapter.

Furthermore, although children who receive mental health services are most likely to be treated in an outpatient clinical service setting (Substance Abuse and Mental Health Services Administration, 2012), there remains a sizeable gap between efficacy and effectiveness research (Weisz et al., 2005). This highlights the importance of collecting treatment outcome data within real-world clinical settings and serves as the impetus for our research collaboration. Preliminary data suggest that the RBP improves not only social competence, but also emotion regulation and other resilience-based skills, in children who present with impaired psychosocial functioning; however, future studies are needed to confirm its effectiveness. We hope that our current clinical and research efforts support the continued expansion of resilience-based psychotherapy for youth struggling with emotional and behavioral difficulties.

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Chapter 16
Promoting Resilience in Children with Intellectual Disability: A Randomized Controlled Trial in Australian Schools

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Introduction

Children with intellectual disability are more vulnerable to adverse developmental outcomes because of the lifelong risks associated with cognitive impairment. Difficulties with learning and adaptive behaviour inevitably produce considerable personal, social and economic disadvantage. Of concern is consistent evidence that psychiatric disorders affect a substantial proportion of people with intellectual disability. The estimated prevalence rate of between 35 and 49 % is three times that found in the general population (Wallander, Dekker, & Koot, 2006).

Until recently, mental illness has been relatively neglected for people with intellectual disability, especially in relation to prevention or early detection (Kolaitis, 2008) and most research to date has been descriptive rather than focused on intervention (Bouras, 2013). Yet a considerable body of evidence demonstrates that efficacious interventions do exist for preventing psychopathology and enhancing resilience in typically developing children and adolescents (see Mallin, Walker, & Levin, 2013 for a review). In order to prevent the high comorbidity of intellectual disability and psychopathology, there is a compelling need for evidence-based practices that promote the resilience of individuals with intellectual disability (Matson, Terlonge, & Minshawi, 2008).

In this chapter, we describe a randomized controlled trial of an intervention that was designed to enhance the resilience of a group of children with mild intellectual disability as they prepared to make the transition to high school. We report results

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from our evaluation of this intervention, and reflect on the difficulties of providing successful interventions for children whose lives are complicated not only by intellectual disability, but also by a range of contextual disadvantages.

Characteristics and Life Outcomes for Children with Intellectual Disability

Compared with their typically developing peers, children with intellectual disability experience many difficulties that threaten optimum development. As well as having impairments in cognitive and adaptive functioning, many experience problems with communication, attention, self-regulation, social competence and behaviour (Harris, 2006). Sensory and physical health problems are relatively common (O'Hara, McCarthy, & Bouras, 2010; Oeseburg, Dijkstra, Groothoff, Reijneveld, & Jansen, 2011) and, not surprisingly, quality of life tends to be poorer (Hall & Hewson, 2006; Walsh et al., 2010). In particular, a robust association has been demonstrated between intellectual disability and psychopathology (Dykens, 2000; Honey, Emerson, & Llewellyn, 2011; Kiddle & Dagnan, 2011; Wallander et al., 2006). Individuals with intellectual disability have higher rates of mental health problems, both during childhood (Einfeld, Ellis, & Emerson, 2011) and in adulthood (Bhaumik, Tyrer, & McGrother, 2008; White, Chant, Edwards, Townsend, & Waghorn, 2005).

Children with intellectual disability may also experience socioeconomic disadvantage that increases their vulnerability to adverse life outcomes. They are more likely to be living in poverty (Emerson, Shahtahmasebi, Lancaster, & Berridge, 2010), either because their parents have restricted employment opportunities and other disadvantages related to lower intelligence, or because caring for children with intellectual disability represents a substantial financial burden for families (Meyers, Lukemeyer, & Smeeding, 1998). Mothers of children with intellectual disability tend to have more limited workforce participation, resulting in loss of family earnings, and increased vulnerability to poverty (Porterfield, 2002).

In a study of 11–19 year olds with intellectual disability, Taggart, Taylor, and McCrum-Gardner (2010) considered risk factors for those with and without behavioural and emotional problems. The group of students who displayed challenging behaviours, hyperactivity and mental health problems, had poorer physical health and had been exposed to a greater number of negative life events than those who were not behaviourally and emotionally disturbed. The family contexts of the two groups also differed. The students with behavioural and emotional problems were more likely to be living in rented accommodation in lower socioeconomic regions, with parents who were single and unemployed. Wallander et al. (2006) examined the mental health of 6–18 year olds with intellectual disability. They found that problems were relatively stable over a 1 year period, but three risk factors were uniquely associated with the development of new mental health problems: the child's physical health, family dysfunction, and parental psychiatric disorders. Similarly, Koskentausta, Iivanainen, and Almqvist (2007) identified higher risks of

mental illness when 6- to 13-year-old children with intellectual disability had more significant impairments in cognitive, language, social and adaptive skills as well as family risk factors of single parenting and lower socioeconomic status.

Resilience and Intellectual Disability

Despite the many risk factors associated with intellectual disability, some individuals do considerably better than others. More positive outcomes are probably due, at least in part, to a combination of protective personal characteristics (e.g., social competence, easy temperament and mastery orientation) and protective features of environments (e.g., family cohesiveness and positive school experiences). Surprisingly little is actually known about resilience in children with intellectual disability, despite the fact that they represent one of the most vulnerable groups. Although the resilience of *families* of children with intellectual disability has been examined extensively (see, for example, Gerstein, Crnic, Blacher, & Baker, 2009; Grant, Ramcharan, & Flynn, 2007), there has been little consideration of the protective factors that might limit the impact of intellectual disability on children's life opportunities and outcomes (Taggart et al., 2010).

For typically developing children, many individual and contextual protective factors have been associated with higher levels of resilience in the face of adversity (for recently published overviews, see Elliott, Kaliski, Burrus, & Roberts, 2013; Rutter, 2013). Individual characteristics include social competence, problem-solving skills, autonomy, sense of purpose, caring relationships, and meaningful participation (Werner, 2000). These protective factors tend to be more elusive for children with intellectual disability. They may struggle with social relationships, their problem-solving skills are limited by cognitive impairments, autonomy is difficult to achieve, and attaining purposeful and meaningful participation in a range of valued activities can be challenging because of restricted opportunities. Resilience research also highlights the important influence of protective factors within the contexts where children live and learn—their families, schools and communities—and the ways in which these factors interact with individual child characteristics such as personality and temperament (Condly, 2006; Emerson & Hatton, 2007; Jozefowicz-Simbeni & Allen-Meares, 2002). Children with intellectual disability may be disadvantaged by lack of understanding and support, low expectations, and limited opportunities for engagement.

In a comparison of children with and without intellectual disability, we found both similarities and differences in the protective factors that are associated with resilience (Gilmore, Campbell, Shochet, & Roberts, 2013). The sample of children with intellectual disability included those who participated in the intervention we describe later in this chapter. Both groups ($n = 115$ with intellectual disability, mean age 11.9 years; $n = 106$ developing typically, mean age 11.8 years) reported similar levels of personal protective factors such as optimism and self-efficacy, but those with intellectual disability reported lower tolerance, higher sensitivity, and fewer future goals than did their typically developing peers. Children with intellectual

disability reported similar levels of support from their families and peers, but more support at school and less support in the community, when compared with the typically developing students.

It is not surprising that children with intellectual disability report being less tolerant and more sensitive than their peers. Skills such as explaining one's own position in a disagreement, making up after a fight, and staying calm when things do not work out, all require competencies such as perspective-taking and emotion-regulation that are often less well developed in children with intellectual disability. To some extent though, these areas may be amenable to intervention. Similarly, children with intellectual disability can be encouraged and supported to set goals. Making plans for the future and discussing those plans with parents and teachers has been identified as a significant predictor of positive adult outcomes for individuals with mild intellectual disability (Seltzer et al., 2009).

Interventions for Children with Intellectual Disability

For children with intellectual disability, interventions have traditionally focused on promoting cognitive, educational and social development in early intervention settings during infancy and early childhood (Guralnick, 2005; Kube & Palmer, 2009; Lipkin & Schertz, 2008). Behavioural interventions are often implemented with older children, adolescents and adults, although such interventions tend to target individuals with existing problems, rather than those considered to be at risk. (For a review of evidence-based psychosocial interventions, see Didden et al., 2012.) Interventions for people with intellectual disability that aim to prevent the development of behavioural and psychiatric disorders by building resilience are crucial since mental health problems tend to be stable across childhood (Wallander et al., 2006) and to persist into adulthood (Honey et al., 2011).

Preventive intervention is likely to be particularly valuable at critical points across the lifespan, such as times of transition when individuals are more vulnerable. For children, these key normative transitions include the move from primary (elementary) to high school which presents increased risks to both academic and social functioning (Langenkamp, 2010) and is likely to be particularly challenging for children with intellectual disability (Dyke, Leonard, Bourke, Bebbington, & Bower, 2007). At this time, students move from a familiar environment to a new setting that has different demands and expectations. Challenges include the need to form new friendships and to adjust to multiple classes with potential reduction of individualized support for learning. The transition to high school has been associated with elevated risks of developing anxiety and depression (Benner, 2011). It is likely that students with intellectual disability are more vulnerable because of the difficulties they tend to experience with adjusting to environmental changes and forging new social relationships.

A substantial body of evidence demonstrates that it is possible to promote developmental outcomes and resilience in typically developing or disadvantaged

children, although intervention effects are often modest, sometimes inconsistent, and not necessarily maintained. It can be difficult to determine why some programs are successful, while others have little or no effect, or to know precisely which components of successful programs are important. In addition, interventions that work well in one location with one group of participants will not necessarily be effective in another place and time, with a different group. Despite the plethora of available evidence-based programs, resilience-building interventions designed specifically for children with intellectual disability are not widely known. Although it may be presumed that children with intellectual disability who participate in general interventions benefit in similar ways to their typically developing peers, as far as we know evidence to support these assumptions has not been documented. We believe that children with intellectual disability are likely to gain more benefit from programs that are specially designed or modified, for instance by reducing the complexity of concepts, slowing down the rate of presentation, and incorporating components that address issues that may be particularly problematic for children with intellectual disability. Some behavioural interventions have indeed been adapted in these ways (see, for example, Sanders, Mazzucchelli, & Studman, 2004). It could be expected that interventions for children with intellectual disability which target aspects of functioning such as social skills, cognitive styles and affect regulation will increase their overall resilience and help to prevent the development of psychiatric disorders, but again the actual evidence is sparse.

In the next section of this chapter, we describe the trial of an intervention that aimed specifically to enhance the resilience of children with intellectual disability as they prepared to make the transition to high school. The study used an adapted version of an established resilience-building program, Aussie Optimism (Roberts, Ballantyne, & van der Klift, 2002), in a randomized controlled trial in two Australian states.

Methodology of the Study

Participants

Mainstream primary schools in the capital cities of two Australian states (Brisbane in Queensland, and Perth in Western Australia) were approached to participate in this study. Letters of invitation were forwarded to parents of children with intellectual disability who were enrolled in the final 2 years of schooling in the 46 schools that agreed to be involved in the study. Criteria for inclusion in the study included a formal diagnosis of intellectual disability that was based on the results of appropriate psychometric assessments (e.g., an individualized assessment of intellectual ability such as the Wechsler Intelligence Scale for Children—Fourth Edition (Wechsler, 2003)), in combination with a test of adaptive functioning such as the Vineland Adaptive Behavior Scales—Second Edition (Sparrow, Cicchetti, & Balla, 2005) and the absence of comorbid diagnoses such as Autistic Disorder or significant physical impairments.

Of the 46 schools, 25 were located in and around the city of Brisbane on the east coast of Australia, while 21 schools were 3,600 km (2,250 miles) away in or near the city of Perth on the west coast of the country. Within each state, schools were matched in pairs according to the socioeconomic status of the area in which they were located, using indicators from the Australian Bureau of Statistics Socio-Economic Indexes for Areas (SEIFA) (ABS, 2006). One school from each pair was then randomly assigned to the intervention condition, while the other school was wait-listed for the intervention. This process resulted in 63 children receiving the intervention (37 in Brisbane, 26 in Perth) and 47 being assigned to the control group (31 in Brisbane, 16 in Perth).

In total, 110 children (41 girls, 69 boys) completed pre-testing plus one or both post-tests. At the first time point, the children were aged from 9 years 8 months to 13 years 6 months, with a mean age of 11 years 10 months. Only two had a diagnosed organic aetiology (Down syndrome, Trisomy X) that accounted for their intellectual impairment. Given their enrolment in mainstream schools, it was assumed that the majority of children in the sample had a mild intellectual disability (i.e., an IQ in the range of approximately 55–69) which was associated with social-familial factors, biological insult or unknown genetic origin.

Complete sets of data could not be obtained for all children. Despite our careful piloting of the measures and their good overall reliability, a few children were noted to have difficulties with item comprehension or perseverative response patterns, and their data were thus not included. There were also instances of missing data due to children's unwillingness or inability to respond to certain items. In addition, 16 children were lost to the study at the second post-test which occurred after most of the sample had made the transition to high school. At this point some students either could not be located or did not agree to participate in the final phase of the research.

Measures

A set of established questionnaires was used to obtain measures of child resilience and mental health at three time points (Time 1 pre-test, Time 2 post-test, Time 3 post-test). The questionnaires were first piloted with a subset of the sample (described below) in order to confirm their appropriateness for children with mild intellectual disability. In order to obtain child data from multiple informants, parents were invited to complete a set of questionnaires in each phase of the study, and teachers were asked to complete the Strengths and Difficulties Questionnaire (SDQ); however, the low response rate from both groups meant that their data could not be included in analyses.

Resiliency Scales for Children and Adolescents (RSCA) (Prince-Embury, 2007). The RSCA is a measure of self-reported strengths and vulnerabilities for children and adolescents aged 9–18 years. Rated on a five-point scale, the 64 items provide composite scores on three scales and ten subscales. The Mastery scale comprises the subscales Optimism, Self-Efficacy and Adaptability. (The latter subscale is for ages 15–18 only, although the item scores contribute to the Mastery scale score for

younger children.) There are four subscales within Relatedness (Trust, Support, Comfort, Tolerance) and three subscales under Emotional Reactivity (Sensitivity, Recovery, Impairment). In the current study, Cronbach's alphas on the Mastery scale ranged from .89 to .92. Similarly high alphas were obtained for Relatedness (.93–.94) and Reactivity (.91–.95). Of the nine RSCA subscales at the three time points, the majority of alphas were above .8 (range .75–.92).

Strengths and Difficulties Questionnaire SDQ (Short Version) (Goodman, 1997). The SDQ is a self-report measure comprising 25 items assessing hyperactivity, emotional symptoms, friendship difficulties, conduct problems, and pro-social behaviours. Responses are recorded on a three-point scale. With the exception of pro-social behaviours, high scores indicate more difficulties with social-emotional functioning and behaviour. The full scale score (minus pro-social items) was used in the current study. Cronbach's alphas ranged from .67 at Time 1 to .77 at Time 3.

Revised Children's Manifest Anxiety Scale: Second Edition (RCMAS-2) (Reynolds & Richmond, 2008). The RCMAS is a self-report questionnaire that measures the level and nature of anxiety in children and adolescents aged 6–19 years. The measure comprises 37 items that produce scores on the subscales Physiological Anxiety, Worry, Social Anxiety, Defensiveness, and Inconsistent Responding. Responses are recorded as either "True" or "Not True". In the current study, the full scale score was used as an indication of children's level of anxiety. Cronbach's alphas ranged from .89 to .91 at the three time points.

Intellectual Disability Mood Scale (IDMS) (Argus, Terry, Bramston, & Dinsdale, 2004). The IDMS is a 12-item self-report instrument developed as a measure of moods (e.g., frightened, excited, sad, tired) in adolescents with intellectual disability. Responses are recorded on a five-point scale, with higher scores indicating greater difficulties with mood over the previous week. An evaluation study of the IDMS among 135 adolescents with mild intellectual disability found support for convergent and divergent validity of the scale. Cronbach's alphas in the current study ranged from .81 to .85.

Moods and Feelings Questionnaire (Short Form) (MAF) (Angold et al., 1995). The MAF is a 13-item self-report questionnaire for children and adolescents aged 8–18 years. It contains a series of descriptive phrases regarding how the respondent has been feeling or behaving in the past week (e.g., "I felt miserable or unhappy", "I felt lonely", "I was very restless", "I did everything wrong") that are rated on a three-point scale. The MAF has demonstrated high internal consistency and acceptable reliability. In the current study, Cronbach's alphas ranged from .85 to .88.

Intervention

The Aussie Optimism Resilience Skills Program (Roberts et al., 2009) was specially developed for this study. It was based on Aussie Optimism (Roberts et al., 2002), an established program that aims to promote mental health and well-being,

and prevent emotional problems such as depression and anxiety in typically developing children and adolescents. The original Aussie Optimism program, an adaptation of the Penn Prevention Program (PPP) (Gillham, Reivich, Jaycox, & Seligman, 1995), was designed as three separate programs for children in middle and upper primary (elementary) school and the first years of high school. The programs cover positive thinking skills, social life skills, and optimistic thinking skills in a school-based intervention that also includes parent and family components. The positive thinking skills program helps 8- to 10-year-old children to identify their feelings, link thoughts to feelings, develop positive ways of thinking, and learn strategies for overcoming worry and anxiety. At age 10–12 years, children participate in the social life skills program which teaches them emotional self-regulation, communication and coping skills, as well as the importance of engaging social support and networks. Older children (11–13 years of age) complete the third program that encourages optimistic thinking, challenges negative thoughts, and develops more positive self-esteem. All programs include instruction, discussions, activities, role plays, and short homework tasks. Within each of the programs, there are ten separate modules that are delivered in one hour weekly sessions across a 10-week period.

In studies with typically developing children, Aussie Optimism has been associated with reductions in anxiety and depression (Roberts et al., 2010; Roberts, Kane, Bishop, Matthews, & Thompson, 2004). In addition, improved social skills were reported following the intervention in a short-term study (Mills, 2007) and there appear to have been benefits also for children with conduct disorders (Swannell, Hand, & Martin, 2009) and substance abuse (Roberts et al., 2011).

Content for the intervention to be used in the current study was taken from the original Aussie Optimism program and adapted to make it more appropriate for children with intellectual disability in the final years of primary (elementary) school (i.e., age approximately 11–13 years). Some of the instructions were simplified (e.g., "describe a situation when you were happy" became "write or draw a time when you were happy") and concepts that were somewhat vague or abstract were explained more clearly and concretely. For example, when discussing important behaviours that let someone know you are listening to them, "show you're interested in the other person" was expanded to "show you're interested in the other person by the look on your face" and combined with modelling of appropriate facial expressions. Given the importance of social skills and problem solving at this age, and with the important transition to high school looming, we drew on material from the original positive thinking and social life skills programs to develop modules that targeted those skills. Previous research with the original Aussie Optimism intervention has demonstrated the short-term effectiveness of the social life skills program for improving social skills in 9- to 12-year-old typically developing children (Mills, 2007). The original optimistic thinking skills program requires verbal and reasoning skills that, even if simplified, were considered likely to be beyond the capacity of most 11- to 13-year-old students with intellectual disability, and thus components from that program were not included.

In addition to simplifying the language and reducing the complexity of concepts for the children with intellectual disability, various adaptations were made to

program delivery. Instead of being packaged as an hourly session, each module was designed to be broken down into shorter sessions. Given their slower pace of learning, more limited capacity for sustained attention, and greater need for repetition to consolidate new learning, children with intellectual disability were expected to master content more effectively if each module was split across two or more shorter sessions during a single week. Some activities were changed to account for the fact that they would be presented to small groups of 2–6 children, rather than whole classes of 20–25 students. As it was anticipated that students with intellectual disability could have limited literacy skills, wherever possible student workbooks included the option of drawing pictures rather than writing.

The final version of the Aussie Optimism program for children with intellectual disability contains ten modules titled feelings, coping skills, problem solving, communication skills, social skills, assertiveness, negotiation, networks, friends and families, transitions and review. In the first module, students learn to identify and express their emotions in an appropriate manner, and to respect the opinions of others. The second module focuses on developing skills for coping with stressors and regulating emotions. Important skills in communication and problem solving are developed in the third and fourth modules. The next three modules help students to develop specific interpersonal relationship skills such as friendly habits, assertive ways of communicating, and negotiation. Children then learn to apply these skills to their peer and family relationships in order to develop networks and support. Finally, the skills learned during the program are reviewed and applied to situations relevant to the imminent transition to high school.

The ten modules are presented in a teacher resource book. There is a rationale and explanation of each topic, recommended and optional activities, key messages, resource sheets, student practice exercises and parent information sheets. At the conclusion of most modules there are ideas for supporting students to achieve outcomes and apply the skills and concepts across learning areas. A separate student resource book contains exercises and activities, along with key messages and homework tasks. Delivery of the program involves a range of methods including teacher demonstration, class discussion and brainstorming, role-playing, group and pair activities, and individual support if required.

Procedures

Ethical approval was obtained from both participating universities and from the education systems within each state. Written permission was provided by parents and children were asked to provide consent at each data collection point.

Pilot testing of the questionnaires to be used in the research occurred with a subset of the participants prior to commencement of the main study. Minor wording changes were subsequently made to the measures (Gilmore, Shochet, Campbell, & Roberts, 2010) to enhance their usability for children with intellectual disability. This process was followed approximately 3–6 months later by collection of Time 1

pre-test data with the entire sample. The questionnaires were administered individually to each child at school by a psychologist or research assistant who was experienced in working with children with intellectual disability. In addition to the minor wording changes to some questionnaire items, various adjustments were made in administration to maximize children's comprehension and ability to provide valid answers. These adjustments included the use of pictorial representations of Likert scales, a slower than usual pace when presenting questions, and repetitions whenever necessary.

Teachers from the special education units in each school were invited to intervention training sessions that were held at the universities in either Brisbane or Perth. Training took one full day and was followed by additional support from the trainers on request from individual teachers. Each teacher was provided with a teacher resource manual, workbooks for students, and information sheets for parents.

The intervention commenced approximately 1 month after Time 1 data collection and, in the majority of schools, extended across 10 consecutive weeks. The intervention was designed so that each of the ten modules could be split into two or three separate sessions within a single week. Feedback from teachers showed that the majority split the modules in this way, while a few presented each module in a single session. Thus, unless children were absent from school on the particular days when the intervention ran, most completed 20–30 sessions that lasted from 10 to 30 min. Each child was given a workbook. Teachers kept records of class attendance, documented progress, and noted any issues arising.

Time 2 post-test data were collected approximately 2–6 weeks after the intervention concluded. Administration of questionnaires again took place in the child's school via individual interviews. Approximately 6 months later, Time 3 post-test data were collected. At this point the majority of students had transitioned to high school within the past 8–12 weeks. They were seen individually by a research assistant in their schools.

Evaluation of the Intervention

Resilience

The potential impact of the intervention on children's resilience was evaluated using the RSCA. Total scores on the Mastery, Relatedness and Emotional Reactivity scales are shown in Table 16.1 for the 78 children who completed the RSCA at all three time points (Time 1 pre-test, Time 2 post-test, Time 3 post-test). Using repeated measures analyses there was a significant effect for time on Emotional Reactivity, $F\ (2,75) = 3.516$, $p < .05$, partial eta squared = .086, with both groups demonstrating reduced levels of reactivity from Time 1 to Time 3, but no significant intervention effects.

Table 16.1 Means and standard deviations for intervention and control groups on all RSCA scales and subscales at the three time points

Scale	Subscale	Time	Intervention: $n=44$	Control: $n=34$
Mastery		T1	55.77 (15.92)	52.71 (14.21)
		T2	56.91 (12.68)	50.62 (14.96)
		T3	54.66 (16.24)	50.26 (12.86)
	Optimism	T1	19.91 (6.05)	19.29 (5.72)
		T2	21.05 (5.34)	18.35 (5.93)
		T3	19.61 (6.21)	17.97 (5.28)
	Self-Efficacy	T1	27.05 (8.45)	25.50 (7.79)
		T2	26.52 (6.92)	23.79 (8.20)
		T3	25.89 (8.77)	23.88 (6.75)
Relatedness		T1	68.37 (20.76)	67.32 (16.22)
		T2	73.09 (19.17)	64.85 (18.38)
		T3	70.63 (19.08)	66.03 (16.91)
	Trust	T1	20.56 (6.43)	20.15 (5.94)
		T2	21.00 (6.04)	19.65 (5.91)
		T3	20.47 (6.45)	19.53 (5.50)
	Support	T1	18.20 (5.65)	18.65 (4.26)
		T2	19.48 (5.16)	16.88 (5.41)
		T3	18.52 (5.12)	17.56 (4.49)
	Comfort	T1	11.14 (4.13)	10.15 (4.08)
		T2	11.73 (3.92)	10.71 (3.71)
		T3	11.27 (3.90)	10.41 (3.98)
	Tolerance	T1	18.53 (6.43)	18.38 (4.89)
		T2	20.88 (5.88)	17.62 (5.53)
		T3	20.33 (5.68)	18.53 (6.18)
Reactivity		T1	34.60 (21.13)	35.65 (16.23)
		T2	34.86 (19.82)	36.29 (15.90)
		T3	30.95 (21.23)	30.76 (18.29)
	Sensitivity	T1	12.32 (6.86)	12.00 (4.74)
		T2	13.02 (6.65)	12.71 (5.36)
		T3	11.41 (6.71)	11.06 (6.28)
	Recovery	T1	4.34 (5.06)	5.38 (5.18)
		T2	4.18 (4.91)	4.59 (4.63)
		T3	3.68 (4.81)	3.65 (4.57)
	Impairment	T1	17.93 (11.63)	18.26 (9.72)
		T2	17.66 (11.29)	19.00 (9.41)
		T3	15.85 (11.60)	16.06 (10.19)

Because raw scores on Relatedness appeared to show different patterns for the two groups, the four subscales (Trust, Support, Comfort, Tolerance) were examined separately. The intervention and control groups displayed very similar patterns of scores on two of the subscales (Trust and Comfort), but differences were evident for Tolerance and Support. Repeated measures analysis of these two subscales showed a trend towards significant intervention effects ($p=.09$) for Tolerance and a significant time × intervention effect for Support. For the latter analysis, Mauchley's test indicated a violation of the assumption of sphericity; thus degrees of freedom were calculated using Huynh–Feldt Epsilon, F (1.86,47.656) = 3.195, $p<.05$, partial eta squared = .04.

Table 16.2 Means and standard deviations for intervention and control groups on mental health measures at the three time points

Scale	Time	Intervention: $n=50$ SDQ $n=44$ RCMAS $n=50$ IDMS $n=48$ MAF	Control: $n=40$ SDQ $n=40$ RCMAS $n=40$ IDMS $n=38$ MAF
SDQ	T1	18.26 (6.05)	16.05 (5.56)
	T2	17.06 (5.18)	16.30 (5.60)
	T3	15.70 (6.70)	15.80 (6.49)
RCMAS	T1	16.20 (6.93)	15.75 (6.90)
	T2	16.45 (6.67)	14.33 (7.08)
	T3	14.70 (7.69)	12.30 (6.93)
IDMS	T1	15.12 (8.18)	13.95 (6.87)
	T2	14.66 (7.50)	13.28 (6.73)
	T3	12.64 (7.41)	12.33 (6.86)
MAF	T1	9.40 (6.38)	9.00 (6.22)
	T2	9.42 (6.34)	7.84 (5.72)
	T3	8.13 (6.84)	6.87 (5.55)

Mental Health and Well-Being

Repeated measures analyses were conducted for the four measures of mental health and well-being (SDQ, RCMAS, IDMS and MAF). Between 84 and 90 of the 110 children completed each questionnaire at all three time points. There were significant effects for time on all measures apart from the SDQ, with fewer difficulties reported over time. However, there were no significant intervention effects. All means and standard deviations are shown in Table 16.2.

The four mental health measures correlated significantly and positively at all time points (Time 1: $r=.50$ to .63; Time 2: $r=.46$ to .63; Time 3: $r=.53$ to .73). In addition, there were some significant relationships between mental health and resilience. In particular, there were strong positive correlations of RSCA Emotional Reactivity with all four measures of mental health at all three time points (correlations ranging from .52 to .68). There were also some significant negative correlations of RSCA Mastery and Relatedness with mental health problems, although these relationships were weaker (from −.20 to −.40) than those for Emotional Reactivity.

Discussion

At the beginning of this chapter, we highlighted the vulnerability of children with intellectual disability, in particular their vulnerability to comorbid psychiatric disorders. Not all children develop mental health problems such as anxiety and depression, but the factors that are protective have not yet been clearly described for this population. There is no doubt that there are many established preventive interventions which work for children with typical intelligence. We have described the way

in which one of these established interventions has been adapted to make it more suitable for implementation with children with intellectual disability. Targeting specific protective factors that are likely to be more elusive for children with intellectual disability, we extracted appropriate content from Aussie Optimism to create a ten-module program. The method of delivery was modified for the needs of children with intellectual disability through the incorporation of shorter chunks of material, simpler concepts, concrete activities and repetition of material.

In addition to this careful adaptation of an existing evidence-based intervention, our study design had a number of other notable strengths. These included the randomized controlled trial across two Australian states, and the piloting and minor adaptation of established measures of resilience and mental health for evaluating the intervention at the end of the program and again approximately 6 months later following the children's transition to high school. The sample size was reasonable for a low-population country like Australia, and we managed to retain 94 of the 110 participants across the three phases of the study.

We found a significant intervention effect for the protective factor of support, with a trend towards significance also for tolerance, but not for the other variables. It seems that the intervention had positive benefits for these two aspects of social relatedness. Children in the intervention group reported significantly more confidence that support would be available from their friends or families if they needed it. They responded more positively to questions such as *There are people who love and care about me, If I get upset or angry, there is someone I can talk to*, and *If something bad happens, I can ask my friends for help*, suggesting that the intervention increased their awareness of the availability of help. This awareness potentially increases their likelihood of seeking help for problems, reduces anxiety and strengthens feelings of connectedness to others. Perceptions about the availability of social support have been linked to psychological well-being in a range of studies with children (e.g., Okawa et al., 2011) and adults (e.g., Brannan, Biswas-Diener, Mohr, Mortazavi, & Stein, 2013; Guerette & Smedema, 2011), including those with intellectual disability (Lunsky & Benson, 2001). As mentioned earlier, the intervention had a strong focus on social competence. Key messages such as "It's OK to talk about my feelings with others that I trust" and "Nothing is so awful or so little that we can't talk about it with someone" are woven through the program. In the networks module, students become aware of the people within their environments who can provide various types of support as they develop their own "circle of help". They then practise skills for making friends and expanding their social networks.

We have previously identified tolerance as an aspect of resilience that differentiates children with intellectual disability from their typically developing peers (Gilmore et al., 2013) and there was a trend towards significant improvements in this protective factor for the intervention group. Children with intellectual disability are likely to have some difficulty with accepting and tolerating differences in other people because of their more limited capacity to recognize and respond to the perspectives of others. The intervention included activities such as identifying the feelings of other people, listening to others, negotiating a fair deal, and saying nice things. These exercises may have enhanced the children's capacity to consider and

understand the viewpoints of others. The improved tolerance they reported would be of considerable benefit to the overall quality of their social relationships.

The finding that reactive behaviours and mental health problems appeared to reduce across the timeframe of the study is intriguing, given that the transition to high school is often associated with increases in anxiety and depression for typically developing students (Waters, Lester, Wenden, & Cross, 2012). However, for children with intellectual disability, the move to a new and unfamiliar environment where they were the youngest students may have dampened the emotional reactivity they experienced as the oldest children in the final year of primary school. Given the challenges associated with the transition to high school, it is unclear why children's moods and feelings improved and anxiety levels dropped. Perhaps the anticipation of challenges ahead was more stressful than the actual reality for many children, or the sharing of new experiences with others who were feeling similarly worried or confused may have lessened individual stress. Schools tend to be very aware of the need to support all students in the transition to high school. Various whole-class activities (e.g., buddy systems that match up new and senior students) are often used to ease discomfort or anxiety. Unfortunately, only 15 parents responded to our request for information about how their child was doing at high school. Although some were reportedly struggling with social and behavioural issues and a few had experienced anxiety or sadness initially, the majority were said to be enjoying their new school. Post-testing was conducted only 2–3 months into the high school year, however, and it is likely that mental health could deteriorate as the year progressed if students experienced increasing difficulty with academic work, an accumulation of failures and/or social exclusion.

Although it is disappointing that the intervention group did not make significant gains in other areas, in retrospect this is not surprising. We chose to intervene with a group of children whose development was compromised not only by intellectual disability, but also in most cases by some degree of social and economic disadvantage. For a substantial proportion it was likely that their intellectual disability was inherited and thus that the life opportunities and experiences of their parents had been limited in various ways, such as in relation to education and employment. In addition, during the progress of the study, children disclosed a range of adverse life events, such as parental mental illness, conflict, or incarceration. The prevention science literature classically recognizes the potential importance of the public benefits provided by even small effects (Rose, 1992). Given the likelihood that many children in our sample had well-established and enduring risk factors in their lives, the small effects we achieved in a short-term school-based intervention are clearly important. Previous research has demonstrated the association of perceived social support with positive mental health (Carlton et al., 2006; Stewart & Suldo, 2011). We may thus reasonably expect that the increased perceptions of social support in our intervention group will lead to future improvements in their mental health and well-being.

Emerson and Hatton (2007) have highlighted the importance of focusing not only on increasing the personal resilience of children with intellectual disability, but also on reducing their exposure to social and environmental risk factors. While we were able to attempt the first, it was not possible to address the many environmental risk factors faced by children in the sample. School-based programs are limited in

their ability to incorporate risk factors that exist outside of the school context. Although the most effective interventions are those that target multiple contexts, incorporating family-based components is challenging, especially in low socioeconomic areas. Indeed, even our attempts to engage parents with the intervention via the use of parent questionnaires and reports failed dismally due to the low response rate, and teachers often reported deciding against involving parents because they believed activities would not be followed up at home.

Overall, although randomized controlled trials are considered to be "the building blocks of evidence-based practice" (Maughan, 2013, p. 225), they are methodologically challenging and the results of even the most robust trials of mental health interventions can sometimes be disappointing (e.g., Sawyer et al., 2010). The literature abounds with examples of intervention challenges, such as retention of participants and maintenance of effects (e.g., Murfield, Cooke, Moyle, Shum, & Harrison, 2011; Oliver et al., 2002). Although at this stage we are unable to determine the extent to which our intervention will have enduring benefits for the children in our sample, the achievement of significant short-term effects in an intervention adapted specially for children with intellectual disability is an important contribution that we hope will stimulate further research.

Reflections to Guide Future Research

It is very encouraging that, despite the challenges associated with providing successful interventions for vulnerable children, we found some significant intervention effects. It is important nonetheless to reflect on the difficulties we encountered in implementation and evaluation that may to some extent have limited the program's effectiveness, and which would be valuable to address when planning future research.

Program Implementation Issues

Findings from a range of school-based prevention and intervention programs have demonstrated that quality of program implementation can significantly affect outcomes (Durlak & DuPre, 2008). Program integrity, or fidelity, refers to the extent to which an intervention is implemented as intended, and assessing program integrity is considered to be an essential part of program evaluation (Lendrum & Humphrey, 2012).

Evidence from teacher reports suggests that the program was not always fully delivered as planned, even though we provided special training, detailed intervention manuals, progress sheets, and support from the researchers when requested. Some teachers implemented the intervention more enthusiastically and more conscientiously than others, a variable that was impossible to control without substituting researchers as the program facilitators. Program fidelity was also occasionally compromised by significant changes in school staff, with one Brisbane school having three different teachers for the special education class across the period of the intervention.

On reflection, we recognize that we should have made more determined efforts to monitor program integrity. While some teachers were very diligent about reporting on program implementation, others were much less reliable. Operating the program across a smaller number of schools would have enabled us to better oversee implementation, making fidelity checks easier to carry out. Unfortunately, the situation in Australia presents challenges for obtaining sufficiently large samples of children with intellectual disability in a small number of settings, first because Australia has a low overall population and thus a relatively small number of available participants, and second because children with intellectual disability are accepted into all regular schools, and thus spread across a large number rather than being congregated in only a few.

In addition, we know that some children were not present for all sessions, and even if present their level of engagement may have been insufficient for them to benefit from the intervention. As illustrated in the following report from a teacher's progress sheet, program implementation did not always go smoothly: *Steven refused to attend, Jamie was very boisterous and uncooperative, Christie and Nathaniel were tormenting each other.*

We know from teacher reports that some components of the intervention seemed to work very well, while others were problematic. Consistently teachers rated most highly the components that involved concrete tasks and physical participation (e.g., an exercise about crossing the crocodile river with a magic stone, block construction for communication, and role plays such as "saying it straight"). At times, they reported the need to further simplify or clarify concepts in the program. Accommodating and adjusting to the different levels of ability within the group was sometimes challenging, especially when reading and writing were required. Many teachers were creative in their approaches to encouraging children's participation in such activities, using butcher's paper for group writing tasks, and adding puppets and puzzles to make writing activities more interesting.

A continual comment from teachers related to the need for more time for mastering topics. Running the intervention across an entire school year would have been preferable. It has been shown that, even for typically developing children, interventions need more than 40 lessons to successfully develop social skills (Denham & Almeida, 1987). Occasionally, difficulties with team work and group discussion were noted, and some teachers found the materials too complicated or the concepts beyond the understanding of their students. In particular, children reportedly had difficulty generating a list of their own problems, understanding compromise, or initiating "glad", "sad" or "mad" solutions to problems.

Evaluation Issues

Although we had piloted the measures to be used for program evaluation, and subsequently made minor wording changes and modifications to administration procedures, some children in the sample were unable to complete one or more of the questionnaires because of poor comprehension, distractibility during

administration, or uncooperativeness. When researchers had concerns about perseverative responding, prompts were generally used to encourage a child to consider all response options, but persistent perseveration still occurred at times. Similarly, the encouragement and prompts that were used when children were unresponsive, uncooperative or inattentive did not always result in usable data.

While we cannot be absolutely certain that there were no subtle comprehension problems or patterns of responding that were overlooked, the strong internal consistencies and significant correlations among measures in the expected directions have led us to conclude that the measures worked satisfactorily for the children whose data were included in analyses. However, measurement issues are an ongoing concern for researchers in the field of intellectual disability. Assessing aspects of mental health and well-being in this population is a challenging undertaking because measurement relies on self-reporting about one's inner states and because individuals with intellectual disability have a tendency to be acquiescent (Carlin et al., 2008). The children in our study who were unable to complete the questionnaires were probably functioning at a lower level cognitively and behaviourally; consequently they may have been the most vulnerable ones in our sample.

Summary and Conclusions

We adapted an established resilience-building intervention specifically for children with intellectual disability, and trialled the intervention in a sample of children who were preparing to make the important transition to high school. At this time, all children are vulnerable, but children with intellectual disability even more so because of their cognitive limitations and associated difficulties in areas such as attention, flexibility, problem solving and social skills.

Evaluation of the intervention in a randomized controlled trial across two Australian states showed a significant intervention effect for the protective factor of support, and a trend towards significance for tolerance. These effects were achieved despite the relatively short timeframe of the intervention, and some issues with program implementation and evaluation. Social relatedness is an area that is problematic for many children with intellectual disability, yet critical for many aspects of functioning and well-being, and likely to be an important protective factor for mental health. Effective interventions are imperative to prevent the chronic comorbidity of intellectual disability and psychopathology in this vulnerable group.

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Chapter 17
Resilience-Based Perspectives for Autism Spectrum Disorder

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Resilience theory has implications for various groups of children; however, given the trend towards uneven profiles of strengths and weakness in autism spectrum disorder (ASD), this particular population may provide a unique opportunity for the application of a resilience-based perspective. In this chapter we discuss key concepts and research relevant to identifying and enhancing resilience in children and adolescents with ASD, practical and research-supported approaches to assessment and intervention incorporating resilience, pilot programs incorporating perspectives consistent with resilience, and directions for programing and research.

Resilience

Resilience is a dynamic process encompassing good or positive outcomes for an individual despite experiences of serious or significant adversity or trauma (Luthar, Cicchetti, & Becker, 2000). In essence, people are considered resilient when they experience adversity or risk for poor life adjustment yet achieve positive adaptation (Masten & Coatsworth, 1998; Olsson, Bond, Burns, Vella-Brodrick, & Sawyer, 2003). Commonly explored adversity or risk factors include low socioeconomic status, mental or physical disability, chronic exposure to violence or aggression, and traumatic life events such as a divorce (Luthar & Cicchetti, 2000). Conversely, positive adaptation is often assessed through evaluations of social competence,

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academic success, and secure attachment with caregivers as well as an absence of psychopathology (Luthar & Cicchetti, 2000; Masten, 2001).

Models of resilience tend to focus on identification of specific risk and protective factors that impact positive adaptation and development. To this end, resilience researchers have focused on conceptualizing the interactions among individual, familial, environmental, and experiential variables that account for positive outcome despite adversity as well as exploring specific characteristics of individuals considered to be resilient and non-resilient to determine what personal attributes may be important in this differentiation (Cowen, Wyman, Work, & Parker, 1990; Garmezy, Masten, & Tellegen, 1984; Masten et al., 1988, 1999; Wyman et al., 1999). Fergus and Zimmerman (2005) note that protective factors can be viewed as personal assets (characteristics within the individual) or resources (factors external to the individual). Specifically, the authors note that three models of resilience are common: Compensatory (where protective factors directly counteract risk), Protective (protective factors moderate risk or reduce the impact of risk on poor outcome), and Challenge (exposure to moderate level of risks facilitates experience and skill development; see Fergus & Zimmerman, 2005 for a more complete discussion). These models have potential to inform the design of interventions, and so are important to consider in understanding risk and resilience, and particularly when determining how to apply the construct to special populations, such as individuals with ASD.

Despite this work and these conceptual ideas, researchers have only recently begun to explore and emphasize childhood psychopathology as a risk factor for adversity (Climie, Mastoras, McCrimmon, & Schwean, 2013). Indeed, a primary focus of research on the topic of clinical disorders of childhood is describing the characteristics of the clinical population that (negatively) differentiate them from the general population. In effect, this research highlights the deficiencies and/or emphasizes atypicalities of the clinical population, primarily to support diagnostic processes and conceptualizations of the clinical population. An example of this tendency to emphasize deficit and disorder while ignoring potential protective factors is research and treatment for ASD.

Autism Spectrum Disorder

ASD refers to neurodevelopmental disorders characterized by qualitative impairment of socio-communicative functioning and the presence of repetitive and/or stereotyped patterns of behavior (American Psychiatric Association [APA], 2013). Specifically, individuals with ASD present with impaired development of social reciprocity and peer relationships (e.g., Baron-Cohen et al., 1996; Kasari, Sigman, Yirmiya, & Mundy, 1993) in conjunction with delayed or atypical language acquisition and pragmatic language use (Stephanos & Baron, 2011; Tager-Flusberg, 1999, 2001), and repetitive motor movements, fixations on routines, or preoccupations with certain topics or objects (Turner, 1999). Early research estimated prevalence at

4–5 per 10,000 young children (Lotter, 1966); however, more recent studies indicate the prevalence to be as high as 1 in 50 children in the United States (Blumberg et al., 2013). ASD is considered a spectrum disorder, with the number of symptoms displayed as well as their severity varying across individuals and, in some domains, over time (Richler, Huerta, Bishop, & Lord, 2010; Szatmari et al., 2002).

Research on the topic of ASD has primarily focused on conceptualizations of the clinical sequelae of the disorder in an effort to clarify and refine the diagnostic criteria, improve the diagnostic process for infants and young children, and enhance our understanding of potential genetic and neural foundations of the disorder. Additionally, researchers have proposed and investigated theoretical explanations of the core socio-communicative and behavioral impairments of the disorder such as deficits in theory of mind (Baron-Cohen, 1995), executive functions (Hill, 2004), and weak central coherence (Frith, 1989).

The result of these research efforts is a rich literature based on the behavioral and neurological characteristics of ASD with a focus on the clinical deficiencies that this population demonstrates. For example, we have reported that adolescents with Asperger syndrome are overly sensitive to emotional situations, are resistant to change, demonstrate poorly developed daily living skills, and may not naturally utilize internal and external support systems to overcome adversity effectively, all of which are related to poorer developmental outcome (Montgomery et al., 2008). Additionally, we have suggested that many individuals with ASD lack appropriate or effective coping mechanisms to address the adversity they experience as a result of their socio-communicative and behavioral challenges, resulting in "reduced" resilience.

Such a focus on the cognitive or behavioral deficiencies is not surprising, as clinical disorders are initially recognized by their differentiation from typical development. Essentially, the focus of research efforts on the topic of childhood psychopathology, including ASD, has been the identification of risk factors for poor outcome and development. However, while professionals and clinicians readily identify deficits and risk factors, it is less common that strengths or protective factors are explicitly identified for individuals with ASD. For example, we have reported that adolescents with Asperger syndrome demonstrate intact intellectual skills related to reasoning with emotional information, and in some cases were better developed than in the normative group (composed of typically developing people of the same age).

We assert that it is important to use a "resilience lens" when trying to understand people on the spectrum, and as such it may be helpful to think about the "flipside" of identified risk factors to identify characteristics or skills that may be useful in building protective skills/factors. Such an approach would redirect researchers to explore the topic of individuals who demonstrate positive adaptation and outcomes despite the presence of a childhood disorder. Through this novel approach, identification of positive attributes or strengths of individuals from the clinical population would be emphasized, as would individual, environmental, and experiential variables as well as specific personal characteristics that are found to be protective factors increasing the chance for positive outcome.

The goal of this line of research would be the development of resilience models specific to childhood disorders, the application of which would result in targeted intervention programs designed to enhance protective factors and minimize risk factors to promote resilience in individuals with a childhood disorder. Essentially, we advocate for individuals with ASD and those who provide support to them to engage in a process of reconceptualization of some of the presenting symptomatology of the disorder, a process that would involve a positive re-framing of symptoms to a view of how they can be adapted and utilized as strengths to support developmental outcome. For example, while individuals with ASD have difficulty with information provided in social contexts, they may have an advantage when information is nonsocial and presented in a logical and sequential fashion. We are not suggesting that areas of deficit should be ignored; rather, we are encouraging creative thinking about how deficits can be addressed using existing strengths, or how protective factors can be built when absent. In terms of protective factors in ASD, this reconceptualization may be seen in well-developed academic skills for particular subjects, or in personal styles for processing information. While a style that overemphasizes logic can be a drawback in some contexts, in other contexts, it can indeed be seen as a skill set that may aid in problem solving, and as such may provide protection via that particular factor. Naturally, this positive re-framing of characteristics of ASD is not appropriate for every behavioral symptom, or for every person with ASD. However, we contend that many individuals with ASD are capable of being supported to harness their unique talents so that they may be better able to positively adapt.

Key Concepts in Resilience that Apply to ASD

Regarding ASD specifically, a number of possible risk factors can be identified that may be important for understanding resilience within this unique population. The core socio-communicative and behavioral characteristics undoubtedly increase the chances of poor outcomes for people with ASD. Further, underdeveloped social competence and ineffective social networks, both of which are common in ASD, have been identified as strong predictors of risk (Luthar, 1991; Rozanski, Blumenthal, & Kaplan, 1999). Behavioral and cognitive flexibility, both of which are frequently reduced in individuals with ASD, have also been shown to be related to resilience (Werner & Smith, 1982). Individuals with ASD often demonstrate sensory hypersensitivity or hyposensitivity (Boyd et al., 2010), which can exacerbate existing social and behavioral challenges. Intellectual ability has been shown to be positively related to resilient outcomes (Luthar, 2003); however, research has indicated that as many as 50 % of individuals with ASD demonstrate cognitive impairment (Bertrand et al., 2001; Chakrabarti & Fombonne, 2005; Charman, Pickels et al., 2011) and for those who have average skills or better, uneven cognitive skills may cause significant struggle (Charman, Jones et al., 2011; Joseph, Tager-Flusberg, & Lord, 2002). They may also (sometimes inadvertently) display aggression towards others and/or themselves, which can further impact engagement in social relationships. Moreover, personality characteristics, such as extraversion

and openness to new experiences, have been positively related to resilience (Davey, Eaker, & Walters, 2003); however, individuals with ASD rarely demonstrate these characteristics (Fortenberry, Grist, & McCord, 2011).

Although many of the features of ASD can be seen as risk factors, some characteristics may be considered strengths that can be useful for either supporting or building protective factors. The key to applying a resilience-based model for ASD requires insight to be able to see both risks (usually deficits) and protective factors (often the opposite of that considered risk). Although not an exhaustive list, we provide some examples of commonly noted limitations and the "opposite" strength or skill, which may be considered protective. For example, many individuals who are considered "high functioning", such as those with Asperger syndrome or high-functioning autism, struggle with adaptability (i.e., cognitive flexibility); however, these same individuals are often very effective within a routine or structure, and can be highly productive when focused on a specific task or project. Additionally, while some individuals with ASD have difficulty thinking holistically and getting the "big picture," they tend to do well when orienting to fine details. Consequently, a strength for attending to details might be a consideration when thinking of tasks that individuals with ASD could lead in group projects. This penchant for paying attention to fine features can be used in tasks where minute elements may be very important to note, and as such, may help to build connections between individuals with ASD and other group members, particularly when the group values the involvement or relies on the individual with ASD for expertise. Individuals with ASD are often noted to have particular difficulty solving problems in new situations. Conversely, they do very well with routine, structure, procedures, and even understanding, creating, and applying formulas and systems. This particular set of strengths can be very useful for a variety of tasks such as when teams require systematic approaches to examining information. When creating structures for classifying, sorting, or categorizing complex information, people with ASD have been noted to identify and extrapolate patterns more efficiently than those with less "systemizing" approaches to thinking (Baron-Cohen, 2009), which can facilitate novel solutions to problems (Grandin, 2006). In a group setting, this can be an important role that an individual with ASD plays. Finding ways to focus these strengths to develop "talents" may increase others' reliance on the individual with ASD, thus fostering connections/belonging which may be associated with increases in self-confidence. In turn, improved self-concept can assist individuals with ASD in overcoming the challenges of their disorder—in essence, becoming resilient.

In the absence of protective factors, intervention workers can look for opportunities to remediate risk directly. For example, a foster child with whom we worked did not have a "reliable" adult he felt connected to, but he demonstrated an interest in learning a particular storytelling technique. The school and child protection team paired this individual with a First Nations elder from his area who was willing to teach these traditions to the student, and at the same time helped to establish a longer term, supportive relationship with the student. In this way, we aim to build protective factors (usually based on an individual's strengths or expressed interest) to contribute to improved resilience.

Examples of commonly identified risk factors and their potential protective counterpart are listed in Table 17.1.

Table 17.1 Commonly identified risk factors and their potential protective counterparts

Deficits (risk)	Strength (potential protective features)
Holistic ("big picture") thinking	Attention to details; local processing (see Happé & Frith, 2006)
Novel problem solving	Strong memory for rules, procedures, formulas, and systems; systemizing (Baron-Cohen, 2002)
Interpreting figurative language	Literal interpretation (see Tager-Flusberg, 1999)
Flexibility	Great with structure and routine (see Hill, 2004)
Understanding social nuance, pragmatics, etc.	Logical, practical, sequential thinking (see Baron-Cohen, 2002)
Understanding social information	Strong memory for factual information (Baron-Cohen, 2002)
Uneven cognitive skills	Areas of marked strength (see Joseph et al., 2002)

By identifying potential areas of strength, we emphasize that we are not suggesting that deficits be ignored. However, we are suggesting that, all too often, people with ASD are seen only in light of their difficulties. Historically, we know that many individuals suggested to have ASD have made important contributions to society, perhaps because of their oversophistication in various areas of development (Fitzgerald & O'Brien, 2007; Mottron, Dawson, Soulieres, Hubert, & Burack, 2006). For example, even Kanner himself identified that individuals on the spectrum have uneven abilities, with noted strengths in areas such as factual information, ability to identify subtle musical features (e.g., pitch and rhythm), knowledge of numbers and number sense, rote memory for prose and complex information, advanced reading, vocabulary, and accurate spelling (see Kanner, 1943). We assert that identification of strengths (which often have the potential to contribute to protective factors) can be the first step to facilitating an appreciation of the skills of the individual with ASD and finding meaningful ways to use those skills at home and school contexts. For example, a child with ASD who has strong reading skills may be paired with a younger child for story time, which provide opportunities for the student with ASD to meaningfully impact other students. This leads to "positive interdependence," a key element of cooperative learning (Johnson, Johnson, & Smith, 1991) where individuals learn to rely on each other to achieve a goal. In these approaches, no one child is considered to be the expert, but teams collaborate to achieve academic or social goals. Positive learning experiences with peers or even younger children where interdependence is developed can lead to the student with ASD feeling accepted and valued, in spite of their differences, and other students genuinely accepting and valuing the student with ASD for their contributions. This, in turn, sets the stage for further group experiences, which can be used to address and build social competence. In this way, an area of strength can be used to address areas of deficit.

Research Relevant to Resilience in ASD

Although the concept of resilience applied to clinical groups is relatively new, some researchers have begun to explore protective and risk factors in ASD. However, the majority of these efforts have focused upon family members or caregivers for

individuals with ASD, rather than the individuals themselves. Research has identified risk and protective factors displayed by parents/caregivers that impact upon the positive adaptation of the family unit to having a child member with ASD. For example, characterizing the effects of ASD as having a positive and/or negative impact on parent(s) and the family as well as family members making meaning of adversity have been found to be positively related to improved ability to adapt to the challenges of raising a child with ASD (Bayat, 2007). Moreover, research has indicated that family members who are able to alter their world view and reexamine what truly matters in their lives has also been found to produce improved outcome for families of children with ASD. The severity of ASD symptomatology, marital quality, family and social support, self-efficacy, and acceptance of an unchangeable situation have been identified as specific factors related to parental resilience to raising a child with ASD (Bekhet, Johnson, & Zauszniewski, 2012; Kapp & Brown, 2011). Seeing the child as more than just their diagnosis has been shown to be related to a balanced and positive outlook on the challenges of raising a child with ASD (El-Ghoroury, 2012). The presence of protective factors has been shown to moderate the presence and severity of stress, depression, anxiety, and quality of life in parents (Bitsika, Sharpley, & Bell, 2013; Lee et al., 2012).

Despite these efforts, very little research has investigated specific resilience factors within individuals with ASD. Although some have advocated for a resilience-based perspective for individuals with ASD (e.g., Groden, Kantor, Woddard, & Lipsitt, 2011; Montgomery et al., 2008; Montgomery, McCrimmon, Schwean, & Saklofske, 2010; Montgomery, Stoesz, & McCrimmon, 2013), a search of the literature on resilience, protective factors, and ASD failed to yield any additional published research on this topic. We suggest that approaches that capitalize on this ability may be a potential protective skill that can be taught and utilized to improve social experience. Examples of such approaches are described later in this chapter.

It is possible to assess for the presence or absence of both risk and protective factors using knowledge of both factors in general populations, as people with autism have similar goals as typically developing people (McNulty, Montgomery, & Medved, 2013) and it is indeed the absence of these "typical developmental skills" which is most problematic in ASD.

In our strengths-based practice with individuals with ASD, we have developed a flexible procedure to assist with the identification of intact or developing protective factors, which we have found useful for intervention planning. This process incorporates formal (standardized tools that include cognitive, social/emotional, and behavioral measures, structured observations, and structured interviews with the individual, parents, and teachers) and informal (semi-structured interviews, observations) assessment of behavioral and cognitive skills to investigate potential protective factors that may enable the individual to overcome challenges. A table we utilize to explore the specific protective factors that could be enhanced through targeted intervention appears below (Modified from: Saewyc, Wang, Chittenden, Murphy, & The McCreary Centre Society, 2006; Vance & Sanchez, 1998). The following table is by no means comprehensive, but may be helpful for clinicians to evaluate ways in which they might help a student build areas that will buffer risk (Table 17.2).

Table 17.2 Specific protective factors to identify and enhance

	Protective factors	Present?	Plan for building
In the individual	Having friends		
	Positive, "easy" temperament		
	Secure mother–infant attachment		
	Future orientation		
	Internal locus of control		
	Social–emotional skills/competence		
	Above average IQ > 100		
	Good reading skills		
	Adaptive skills		
	Problem-solving skills		
	Sense of humor		
	Self-confidence		
	Empathy		
	Feeling connected (school, community, family)		
	Feeling safe		
	Liking school		
	Academic strengths		
Family/community	Family support		
	Adult mentor for child outside immediate family		
	Community support		
	Consistent discipline from parents		
	Peer support		
	Hobbies/activities		
	Literacy support (modeling of reading, access to libraries)		
	Prosocial attitudes		
	Established routines		
School	Quality teachers		
	Quality instruction		
	Strong connections between home, school, and community		
	Consistent expectations at school		
	Peer support		
	Identification/nurturing of talents		
	Good reading instruction		
	Prosocial environment		

After assessing for the presence or absence of risk and protective factors, we can design interventions to either (a) reduce risk, (b) strengthen existing assets, and/or (c) build assets where none exist (see examples below).

Practical Applications

Where protective factors are absent, we acknowledge that this increases risk and we do our best to determine if there are ways to build skills related to the factor. Clearly, many of the documented protective factors for typically developing individuals are

compromised for people with ASD. As an example, social–emotional skills are widely recognized as a primary area of deficit for individuals with ASD that may be underdeveloped or have absent components, and these deficits have a large impact on daily living and quality of life. In the case of social–emotional competence for students with ASD, we refer to work by Gresham and Elliott (2008) on the Social Skills Improvement System (SSIS) to break social competence into subskills such as communication, cooperation, assertion, responsibility, empathy, engagement, and self-control. Using this system to determine which area(s) are intact and which are problematic for students with ASD helps the school team to target specific intervention goals. For example, if a student shows his or her most notable deficits in the empathy area, but has intact communication skills, we may design an intervention (or use commercially available lessons, as in the SSIS) to teach empathy and at the same time capitalize on the child's (verbal) strengths.

Sometimes, we find that there are knowledge gaps in some areas of social skills, while other areas of social interaction commonly addressed in many intervention programs are intact. For example, many social skills programs focus on teaching individuals the meaning of different facial expressions, but we find in our clinical and research experience that individuals with ASD can often identify the emotional meaning of facial expressions correctly and relatively efficiently (Montgomery et al., 2008). However, knowing potential options to respond in situations where emotions are clearly expressed can be problematic for this population. For example, a child may notice and comprehend that her friend is sad, but not know what to do about it. When this misalignment of intervention focus and individual skills occurs, we advocate for direct instruction about what to do in social situations without re-teaching knowledge that is already in place. Programing that focuses on re-teaching previously learned material in spite of the child's knowledge, such as teaching recognition of facial expressions to the child in the above example, misses opportunities to teach valuable information and likely loses the student's interest by spending time on unnecessary content. Indeed, we have found that individuals with ASD can be very practical, and may even lose trust in the team if unnecessary re-teaching occurs.

From a knowledge perspective, we can teach the student several appropriate responses, model them, and then extend beyond knowledge by offering opportunities for practice with peers or through techniques like video-modeling to help the child learn how to apply this new knowledge. Essentially, we provide opportunities for the child to build fluency with applying skills by providing "naturalistic" practice opportunities with peers, sometimes offering support, guidance, and even feedback from an adult if it is required. Our main goal is to have the student use (social) knowledge and skills in natural ways with minimal adult "interference" whenever possible. We aim to slowly remove the support provided by others as the student internalizes the skills, yet we continue to give feedback on interactions when the team feels that it will benefit the student. Eventually, we remove all of these supports, and any adult or "other" guidance is provided only as it naturally occurs. In these ways, we attempt to create new protective factors via skill development.

For example, in our social skills groups, we have taught conversation skills directly by teaching the "rules" of conversation. We often model this for the students, and

then give them each a card depicting a situation where a rule is needed (e.g., we take turns talking). Initially, we may model how rules are applied and identify clues another person may give you that may tell you what they want (e.g., yawning may mean they are bored with the topic). As students become familiar with rules and clues, we role-play situations with them to give them practice opportunities with the adult playing the peer initially. Initial role-plays may involve facilitators whispering ideas to children when they seem stuck, or asking them questions that prompt knowledge recall and move the role-play forward. We may even ask other children in the groups for ideas to support the child who may not recall what to do or be able to generate their own response. The goal here is that children feel supported, but that we move from providing the answers for them to helping them to problem-solve independently. We provide repeated opportunities for children to practice examples, moving towards having children practice with a peer in the group once they do well with an adult role-play partner. We also ensure parents are aware of what rules we have role-played and the details the students have learned, so that they can find opportunities to remind the child of the rule, or opportunities to support application with prompting questions (we provide handouts for parents in most of our sessions to aid this). In our social skills groups, we also utilize group outings, because they provide an opportunity for more natural practice sessions. For example, on a bowling field trip, students had a "scavenger hunt" work sheet, which asked them to complete a series of social interactions (e.g., Give someone a compliment, Start a conversation). Adults observed students for competent application of newly learned skills, reinforced completion of skills or even approximations, and provided guidance and feedback when needed. Parents were also present for this session so that they could see how the team supported students, and how to use the techniques in other contexts.

While specific social skills development is a common target for ASD intervention, many individuals we have served who have ASD report that they do not have a friend, or they report that they have a friend but informants (e.g., parents or teachers) report this "friend" does not actually consider the individual with ASD a friend. If no real friendships are present, the intervention team examines opportunities to support the development of friendships. Is there another person who relates relatively well with the target individual? If so, can opportunities for socialization be supported and monitored? Sometimes, we provide these opportunities via groups for people with similar conditions. While the ultimate goal is for the individual to have same-age typically developing peers, for individuals who have never had one real friend, the introduction of a person with similar strengths and difficulties can be incredibly meaningful and a step towards interacting with all kinds of same-age peers. For example, in our self-regulation groups, we solicit feedback from parents about how the group impacted their child a few months after the intervention has occurred. For several parents, the most important impact is that their child now has regular play dates with other children in the group (and the parent also has another parent facing similar issues to talk to). Alternatively, the clinical team may evaluate whether community-based activities might provide opportunities for more naturally occurring friendships to develop, noting of course that children with ASD need support to navigate social relationships; so monitoring is crucial.

Having a talent has been reported to act as a protective factor for many typically developing children. For children with ASD who often have uneven skills, one of the positive aspects of this is that they often have "splinter skills" (Rogers, 2011). We have found that it is often useful to use those strengths in the development of a talent. Moreover, if the talent can be used to help a student find a niche where others value, respect, and even rely upon, their expertise, the student is essentially supported to acquire a sense of place (or belonging) in addition to being provided opportunities that may foster friendships with others who have similar interests. For example, we have worked with many students with ASD who take a particular interest in computers and how they work. In typical peer interactions, this strength can offer students with ASD opportunities to be seen as the "expert" or talented individual with computers. From a peer tutoring perspective, this experience offers opportunities for individuals to be reinforced for their skill set, which may encourage additional skill development. From a lifelong learning perspective, having an interest that others value can be helpful in not only finding a sense of "belonging" with peers, but also in developing lifelong pursuits that may lead to a sense of mastery and career development opportunities later in life.

While the approaches described above aim to increase protective factors primarily within the individual by building skills or enhancing personal characteristics, it is also important to remind the reader that resilience can be enhanced by a focus on building external supports for individuals in families, communities, and schools (see Fergus & Zimmerman, 2005 for more detail). As such, educating parents, teachers, and community workers to assist individuals with ASD and their families in providing external supports in a variety of ways can be a powerful component of interventions directed towards those with ASD. Education aimed at improving support networks should not only focus on helping those support teams to understand ASD, but should also help to reorient support teams to look for opportunities to identify strength and build protective factors, rather than just focus on decreasing exposure to risk. Indeed, as "challenge models" of resilience indicate, part of building resilience is exposing individuals to situations where they need to actively use coping skills or personal protective characteristics to navigate the challenge. This approach may be counter-intuitive to parents or professionals who feel protective of children with ASD, and who may help them avoid situations where they may put themselves at risk. Yet, it is clear that without opportunities to navigate such experiences, it is unlikely that individuals will "magically" develop the skills needed to be successful in everyday life and in challenging situations.

In addition to helping team members understand this aspect of building resilience, it is helpful to educate them about *how* to provide support during situations. As illustrated in the previous examples, we address this issue in our clinical work by teaching support members to provide some guidance or prompting initially, and to gradually remove these supports as the individual becomes more able to navigate the situation individually. Essentially, we advocate for a "scaffolded" approach whereby the individual with ASD is gradually and systematically afforded the opportunity to practice learned skills in a natural setting with progressive independence. Indeed, assisting individuals in support positions to understand the

importance of their role in supporting those with ASD to become more independent, via explanations of resilience theory, may increase the likelihood that these roles are carried out in ways that really do improve outcomes. When working with parents, we explain, in simple terms, the concept of the Zone of Proximal Development [that when you first learn a skill, you often require guidance from someone who is more experienced (and who has a relationship with the student) and, as you get more adept at that skill, less guidance is needed (Vygotsky, 1978)]. We often use the analogy of riding a bike to explain this.

In the first stage of learning to ride a bike, you need someone to hold the bike for you. Perhaps this is a parent who will help you get on the bike, hold it steady while you find balance, and give you verbal instructions to remind you of the important things to do ("stay in the center, try to balance, don't go to fast," etc.). At this stage, the parent provides a lot of support, both in the form of verbal instruction and physical support (holding the bike). In stage 2, the learner provides that assistance to themselves, usually in the form of self-talk mirroring that which they have heard from the adult ("keep my head up, look straight ahead, balance"). Stage 3 begins when the child internalizes the "rules" by saying them in their mind, rather than aloud (though you may still see the child's lips moving). As the skills become more developed, the child may not even need to "say the words in mind" and simply become automatic with the skills. At this point, we consider the skill learned and can relax our monitoring as parents, knowing however, that sometimes children lose skills, or new situations arise that require a new set of adaptations of the skill (e.g., going over curbs). We recognize that it is OK and helpful to revisit skills at these times, and maybe even re-teach components to increase fluency with different bike riding situations. We then indicate that this analogy can be used for all learning, and we model ways that parents can support, and how and when to relax and provide less support.

In some cases, individuals do not have natural support networks that can play the role of "external" protective factors. When this occurs, it is essential to connect individuals with community-based or professional agencies that may be able to assist the individuals in navigating situations, which may increase exposure to risk. This support may take the form of identifying formal professional supports (e.g., counseling or therapy), or less formal community groups (e.g., peer support groups, community-based advocacy agencies, nonprofit associations) that may be beneficial. We outline some of the programmatic approaches we have implemented below, noting that the procedures outlined in our previous examples are also used in the programs we describe, at the appropriate developmental level.

Sample Adult and Child Interventions Apply Aspects of Resilience Theory

Spark Program*. We have piloted a number of social skills programs for children with ASD over the years. More recently, we piloted a program that specifically targets self-regulation, self-advocacy, and increased behavioral flexibility to enhance resilience. The Self-regulation Program of Awareness and Resilience in Kids

(spark*; MacKenzie, 2010) is a program designed to improve behavioral, cognitive, and emotional management—a skill set clearly related to social competence, flexibility of thinking, feeling in control of one's own behavior and choices, all of which ultimately set the stage for the skills to build a social network. The main aim of the program is to capitalize on the propensity for students with ASD to benefit from concrete, systematic instructions by teaching them first that they can regulate their body (e.g., movement, pace, intensity). The instruction then proceeds to teaching students that they can control their thoughts (by teaching coping strategies and thinking skills), and finally that they can likewise control their emotions and reactions to situations (with similar exercises; for more information on spark, please see http://spark-kids.ca).

We have been piloting this particular program with groups of children aged 6–11 with ASD. In general, our participants are verbal (though we have piloted the behavioral module of this program successfully with less verbally able students in the form of one-on-one training). We typically implement only the behavioral regulation module, which requires approximately ten 1-h sessions to complete, because of time limitations.

In the behavioral regulation module, we generally focus on teaching students that they can control their bodies and voices using a series of games. For example, we may sing songs (that have actions) and vary the speed, volume, and "character" of a song. "Head and shoulders, knees, and toes" is commonly used in our groups to help students realize how they can control and change the way they use their body and voice. We may start with the students singing the song in the usual fashion, and then move to a slow motion and/or a high-speed version. We may have them do the actions without words, or with whispered lyrics, or even while singing as loudly as they can. When we have a particularly adventurous group, we may even have them sing a "country music" version, a rock version, and a rap version of the song. What is important here is that we are reviewing the ideas that children can control their body and voice in various ways, but ultimately, they are in control of these things—they are not in control of the children.

Some lessons focus on a particular part of the body. For example, controlling one's hands is a very important skill in most classrooms, and lack of hand control can cause a variety of problems (other children being hit, school supplies being tapped and distracting others, toys being thrown, etc.). A popular aspect of the spark* group (according to parents) is teaching the children to control their breathing using relaxation strategies. Meditation "experts" often refer to "turtle breathing," and this approach is adopted to teach relaxation in spark*. We introduce this activity by talking about how animals move, and the idea the turtles are slow and steady. We may even observe a turtle, or read or role-play "the tortoise and the hare" prior to learning this strategy. We then use the following steps to teach the students to relax.

1. Start to notice how you are breathing. Pay attention to the air going in and out of your lungs.
2. We are now going to breathe steady and slow just like a turtle moves steady and slow.
3. Now we are going to try breathing in through our noses and out through our mouths. Let's pretend that when we are breathing in that we are smelling fresh

baked cookies out of the oven. We want to breathe in deeply and slowly (just like a turtle) to get in all of the scent we can.
4. When we breathe out, let's pretend that we are blowing on a cup of hot chocolate to cool it down. We will slowly release the air through our mouths (like a turtle would).
5. Let's try that all together. Breathing in nice and slow 1, 2, 3 and out nice and slow 1, 2, 3. In 1, 2, 3 and out 1, 2, 3.

We then have the students identify contexts that this technique would be useful (e.g., your sibling is bugging you, your parent interrupted your activity). We utilize targeted and naturalistic practice within the group setting. That is, if a child is stressed over something in group, we remind them to use turtle breathing, or stop the whole group to practice it together, supportively. We also teach parents about this technique and they report that prompting the child to use the technique when they seem to be approaching a "meltdown" has actually prevented escalation. Parents also report that children independently use this technique to calm themselves without prompting and that it appears to improve their ability to cope with stress.

It is important to note that we also run simultaneous parent groups when we implement spark*. We use this opportunity to strengthen external protective factors by helping parents develop social support networks with other parents of children with ASD, to teach parents about ASD in general, and to provide information on what their children are learning in the intervention program. We start the groups by asking what the parents would like to learn about ASD or the program we are running. We then bring in a variety of community "experts," sometimes identified by the parents, to address these identified areas of need. In addition, we reserve several sessions for parents just to speak to each other about their challenges and solicit advice from other parents who have successfully navigated similar issues. To make this run smoothly, we ask parents to brainstorm questions they would like to ask other parents in the first group session. Finally, after each session, a facilitator from the children's group comes to the parent group to summarize the activities for the day and provide one tip about how to help support the skills targeted. We also provide parents with a series of newsletters outlining lesson content and suggestions to support learning in other contexts. Parent groups are not spark* specific, nor are they required for running this particular program. However, we have found that parents are grateful for an opportunity to meet together when participating in a program that occurs in the evenings. As such, we provide this somewhat "captive" audience with semi-structured opportunities for peer support and learning, while we have their children in group sessions. Feedback on these groups indicates that parents find this to be extremely helpful and feel less isolated in parenting their child with ASD, thus increasing resilience in parents of children with ASD.

To date, we have completed two separate pilot trials of spark*. For trial 1, six children aged 6–8 and seven children aged 9–10 participated in simultaneous, but separate age groups. Results from this initial pilot indicated that 10 weeks after programing ended, parents of participants reported significant improvement (paired samples *t*-test, <.05) in their child's behavioral regulation on the Behavior Rating

Inventory of Executive Function (BRIEF; Gioia, Isquith, Guy, & Kenworthy, 2000); and parents reported that their own stress levels decreased significantly (paired samples *t*-test, <.02) on the Parenting Stress Index (PSI; Abidin, 1983; for more information, see Funk, Montgomery, & MacKenzie, 2012).

These preliminary findings led us to conduct a more in-depth examination with a subsequent group, where we used a performance-based measure of self-regulation and other executive functions to evaluate whether observable changes in performance could be seen in addition to parental perceptions of improvement. In this second pilot, we worked with nine children aged 7–10 and administered selected subtests from the NEPSY-II (Korkman, Kirk, & Kemp, 2007) to assess performance of executive functions (higher order cognitive tasks related to self-regulation). Results indicated that a 10-week focus on teaching and providing practice opportunities for behavioral self-regulation skills resulted in a significant reduction in unusual behaviors (paired samples *t*-test, <.04) and behavioral rigidity (paired samples *t*-test, <.01). While not reaching statistical significance, an improvement trend was noted for self-regulation and attention skills (paired samples *t*-test, =.08; for more information, see Stoesz, Montgomery, & MacKenzie, 2013). These results indicate that skills related to coping, self-advocacy, and indeed overall resilience can be improved using approaches that directly teach such skills to children with ASD. While preliminary, we see this as a promising first step towards quantifying how children with ASD can improve sets of skills that may act as buffer against risk in their everyday lives. Long-term follow-up is of course required, to clearly evaluate this.

Skills for Living Program. Adolescents and young adults with ASD often have very logical, sequential approaches to understanding the world (Baron-Cohen, 2002), a perspective that may be considered a strength. Given this information, and in response to community needs, we developed a program that participants named "Skills for Living." This program is designed for youth and adults and is a consumer-driven intervention program that aims to directly teach systems of interaction and interpret the meaning of interactions to youth and adults with ASD. The approach capitalizes on the tendency to want information provided in a systematic way, while also providing opportunities to develop more natural skills in incidental situations and through discussion aimed at illuminating common social problems. We operated this program from the perspective that youth and adults with ASD are people first, and as such can identify their own goals and needs in terms of their programing. While this approach may seem logical, it is important to note that many programs and policies are developed without input from those who are directly supported, and we wanted to avoid this lack of involvement in the development of our program. Consequently, our program for youth and adults begins with an interview so that we can learn a bit about potential participants, find out what they believe they do well, and have them identify (from a menu that we provide) their own goals for development.

Since participants choose their own goals, each of our groups has been somewhat unique depending upon the composition of group members. For example, a group of young adults (aged 16–19) was more interested in navigating romantic relationships

and getting a job, while a group of older adults was more interested in developing interviewing skills and establishing and maintaining relationships in the work environment. Despite the age range of our groups, members always identify difficulties navigating relationships in general as a primary concern, and it is specifically here that we can illustrate how concepts related to resiliency have impacted our programing. As indicated by Luthar (2006), "Resilience rests, fundamentally, on relationships. The desire to belong is a basic human need, and positive connections with others lie at the very core of psychological development; strong, supportive relationships are critical for achieving and sustaining resilient adaptation" (p. 780). It is this understanding that leads us to provide peer groups where individuals develop skills together, with a secondary benefit of our groups being that many friendships begin in this context. Even if individuals do not develop friendships with group members, feedback from participants in these groups indicate that they have acquired the foundation for forming friendships in other contexts through these groups.

As mentioned earlier, findings from our research indicate that one form of a construct known as emotional intelligence, specifically the trait type, appears to be deficient, while the other form was strength for our experimental group of adolescents and young adults with ASD (Montgomery et al., 2010). We know that social–emotional competence is an important individually oriented buffer against risk. From the information generated by our research indicating that some form of strength was present (reasoning about emotional information), and in light of research indicating that you can teach the form of EI that our group of adults with ASD was weaker in (trait EI), we hypothesized that an intervention program consisting of direct instruction combined with opportunities for discussion and practice in the group would improve social outcomes. In addition to emotional intelligence, this group also aimed to build protective skills such as problem solving in emotional situations, self-advocacy skills, and self-awareness. By normalizing many of the ASD characteristics (through working with peers with similar experiences), we also hope to positively impact self-esteem, which we know is another protective factor. While it is possible that we also impacted other aspects of some of the recognized protective factors, these were the few that we attempted to directly impact through our groups.

While our research here (in the form of program evaluation) is quite preliminary, it does appear that some direct instruction, appealing to the cognitive strengths of many with ASD combined with opportunities to practice and problem-solve in a safe, therapeutic setting, resulted in gains in measured skills. Results of quantitative data for 24 youth and adults revealed significant improvement in interpersonal skills [Bar-On EQ-I; Interpersonal EQ subscale (paired-samples t-test, $<.001$) and Overall EQ (paired-samples t-test, $<.05$), and more importantly, group members reported many concrete gains, which we see as indicators of more resilient outcomes in spite of their acknowledged risk (see Montgomery, North, et al., 2013). One group member reported having the confidence to pursue his first job interview, while another indicated that he had never had a friend before the group, but after the group he reported that he found his first friend by using techniques discussed in group. Finally, one individual informed us that he had been able to successfully ask someone out on a date after the group. These outcomes, while short term, are the types of

events we really want to see occur with youth and adults with ASD, as they are experiences that typical people enjoy. We feel strongly that with support and understanding, people with ASD can enjoy these experiences as well. Overall, it appears that the experience of building the protective factor of social–emotional competence through EI training was not only beneficial, but also considered worthwhile by our group members. For example, our participants said:

It helped me with some friendships, maintaining them, trying to fix anything which went wrong in the past (recent and not so recent). I've also used some of the calming techniques talked about in the group.

I think I was able to analyze anger more effectively. I used to react, now I try to calm and relax before approaching a disagreement with someone and assess the situation more. People from the group said it was helpful to try and see where the other person is coming from, where their thinking might be.

Being able to gather and discuss issues of common interest and concern with my peers and the use of everyday examples and the ensuing discussion was helpful.

I found myself thinking on more than one occasion, 'thank god I'm not the only one'.

I liked being around others. Meeting new people, receiving support, building positive, safe relationships. I felt I came out of the group with new skills, new perspectives and knowledge.

The experience that I had since participating is just being able to find out who I am and what I have and what can be done after this. Just being able to be with people who have similar traits as me boosts my self-esteem. I think participating in a group like this is a way of saying none of us are perfect and all of us have obstacles to face. So coming here just makes me want to improve more to have a healthier lifestyle.

Everyone had a chance to contribute something even if only one thing. We all had a good time and made each other laugh. We all tried our best to be supportive. I think there will be a few new friendships out of this group, as they've already begun to take shape.

Directions for Future Programing and Research

Resilience-based applications for people with ASD have the potential to improve essential outcomes for children and adults. Most importantly, using perspectives informed by resilience theory can help to shift our perceptions of people with ASD from being primarily deficient in skills and even personal characteristics, to a more balanced approach that enables a more realistic, adaptive view not only of people with ASD, but also of their potential to contribute to communities and society. We assert that this approach considers both strengths and difficulties to design more appropriate interventions, and should be considered a fundamental feature of any effective intervention for this population. Further, research efforts to document and support these efforts are clearly needed.

Targeted assessment of risk and protective factors that are present or absent should be the basis for clearly linking assessment to intervention, which leads to increased efficiency in the delivery of interventions, increased likelihood that approaches actually meet the needs of individuals with ASD, and improved outcomes for this population (see Batsche, Castillo, Dixon, & Forde, 2008). In addition, clearly linking assessment to interventions facilitates the evaluation of the impact of interventions, as outcomes become easier to operationalize (for example, in a resilience-based approach, one could identify and quantify appropriate real-life outcomes known to decrease risk, like having a friend or involvement in activities with peers). From a practical perspective, this type of explicit link can also be helpful to keep practitioners on track and focus on the real goals for intervening. Moreover, this approach to intervention can occur in any setting, be it in the household, on the playground, in the classroom, or in a more formal clinical environment.

Preliminary findings of our programs, which were inspired by the study of resilience and the belief that one can build those factors and facilitate good outcomes in spite of risk, are promising. However, at this point, this information is very preliminary and requires further research to confirm the impact we are seeing. Further, we need to monitor individuals over time to see if these impacts are lasting. Indeed, if one is focused on building resilience, it would be wise to directly measure the construct over time with scales specifically designed for the resilience construct, such as the Resiliency Scales for Children and Adolescents (Prince-Embury, 2007). In addition, collecting data about real-life outcomes related to resilience (e.g., making a friend, self-esteem, problem-solving skills) will provide important information that will help researchers and clinicians understand the impact of such interventions, which may, in turn, be useful for advocacy and intervention.

We are hopeful that other researchers will join us in these efforts to understand how to enhance resilience through the strengthening or building of protective factors. To truly understand how to intervene using this perspective, researchers should directly investigate individuals with ASD who have had good outcomes, despite the risk of having this condition. In addition, we hope that this approach will open others to looking at a more balanced view of individuals with ASD (as per El-Ghoroury, 2012), realizing that there is a "flipside" to deficit and that if one looks closely, areas of strength (which can be used to design interventions) are usually evident. In turn, we hope that a resilience-based perspective will impact the way that researchers, clinicians, families, and policy makers view people with ASD, particularly with regard to their potential to contribute meaningfully to communities and society as a whole. Barring the identification of existing protective factors, clinical teams can use problem-solving approaches to identify opportunities to build "protection" through interventions, and we believe the potential for approaches of this sort is great.

In terms of need, providing programs for people with ASD has alerted us to a gap in services. At any given time, we have at least 60 people on our children's group waiting list, and 30–40 people on our adult waiting lists for groups that may or may not run each year, depending on institutional support and student availability. Unfortunately, many organizations reserve treatment for individuals with ASD who are somewhat lower functioning, and as such, many individuals with ASD are not

eligible for support that may target the enhancement of protective factors. We see this restriction as short-sighted, as we know that the cost of not helping individuals with ASD is large and includes costs associated with mental health conditions that may emerge if individuals do not receive prompt treatment. Using a resiliency informed approach can help to protect individuals with ASD from this common, debilitating outcome. While we are not policy makers, we hope that approaches and projects like ours will demonstrate that great benefit, both in terms of potential financial savings to systems and personal growth for impacted individuals, may emerge from such programing. We are hopeful that researchers and clinicians using strengths-based approaches to build protective factors and mediate risk will be involved in discussions with advocacy groups and policy makers that may translate to better outcomes for people with ASD. In this way, we hope our preliminary programing and conceptualizations may have an impact on families of and individuals with ASD.

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Chapter 18
"SPARK for Learning": Using School-Based Interventions to Build Resilience in At-Risk Youth

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The concept of resilience is fast becoming a buzz word in developmental research and has gained significant momentum as a research focus over the past 20 years. LeBuffe, Ross, Fleming, and Naglieri (2013) note an explosion of published articles from less than 20 in 1990 to over 1,200 in 2010, with the numbers continuing to rise. Indeed, the focus on resilience provides a solid framework for examining influential factors in the lives of children and youth. However, a greater emphasis on building resilience in children and youth is becoming more prominent and has significant implications for supporting those who may be at risk for negative outcomes.

The focus of the current chapter is to understand the process of building and enhancing resilience in an at-risk population. Although this concept is not unique in and of itself, there is a relative lack of research focusing on building resilience on a large-scale level, such as through the implementation of a school-wide intervention program. This chapter outlines the relevant history and research surrounding resilience and school-based intervention and integrates a school-focused perspective on supporting at-risk children. Description of the needs of a specific at-risk population (children with learning and/or attentional difficulties) is detailed, followed by a focus on engaging youth in school and building resilience through play and daily physical activity. Finally, a case study is provided, outlining the "SPARK for Learning" intervention program. SPARK for Learning is a unique whole-school intervention that merges the work of Ratey (2008) with a resilience-building approach to working with at-risk youth through the incorporation of physical activity into the daily school routine. General outcomes of this program and directions for future research will be discussed, with a focus on grassroots program support for at-risk children and youth.

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Resilience

The concept of resilience is becoming more widely researched and significant strides are being made to better understand how some children are successful despite the presence of a number of adverse conditions that may otherwise affect their outcomes. Resilience is commonly understood to be a dynamic process encompassing positive or good outcomes in an individual despite occurrences of serious or significant hardship, difficulty, or trauma (Luthar, Cicchetti, & Becker, 2000). The concept of resilience infers that two specific constructs be present. First, there must be the existence of adversity. Specifically, this adversity must be associated with life situations that are commonly known to cause negative long-term outcomes, such as low socioeconomic status, parental conflict, mental health issues, or traumatic life events such as the death of a family member (Luthar & Cicchetti, 2000; Masten, 2001). The second necessary construct is the presence of positive adaptation despite these negative life situations. Positive adaptation is typically measured through observable behaviors such as social competence, academic success, and secure attachment with caregivers (Luthar & Cicchetti, 2000). Individuals are generally considered to be resilient when they face significant adversity during development yet still display positive outcomes (Masten & Coatsworth, 1998; Olsson, Bond, Burns, Vella-Brodrick, & Sawyer, 2003).

A number of models of resilience have emerged over the past three decades (e.g., Masten, 2001, 2002). The emphasis of many researchers has been the distinction between person-focused and variable-focused approaches. Person-focused models explore individual differences in resilient and non-resilient populations to determine what naturally occurring factors may differentiate these two groups. Research in this realm has tended to investigate groups of individuals from the same adverse environment who demonstrate either adaptive or maladaptive outcomes (e.g., Cowen, Wyman, Work, & Parker, 1990; Masten et al., 1999). For example, much of Masten's early work focused on homeless youth in high poverty environments, where some children were more successful at school than others (e.g., Masten & Coatsworth, 1998; Masten, Miliotis, Graham-Bermann, Ramirez, & Neemann, 1993; Masten et al., 1997).

In contrast, variable-focused models explore specific attributes of children, families, and other environments or experiences to gain a clearer understanding of the types of variables that, despite the presence of adverse conditions, may precipitate more favorable outcomes. For example, recent research has begun to examine factors within the child (e.g., emotional intelligence), family (e.g., social support), and schools (e.g., teacher expectations) that may allow at-risk children (such as those with Attention-Deficit/Hyperactivity Disorder [ADHD]) to be more successful (Climie, Mastoras, McCrimmon, & Schwean, 2013). Within this field, much effort has focused on understanding and identifying protective factors, or those factors that moderate or ameliorate the effects of risk, and how these protective factors may play an influential role in supporting children's long-term development and success (Garmezy, Masten, & Tellegen, 1984).

However, the ability to build resilience, rather than simply understand the process, in children and youth is only recently becoming an empirical focus. Masten and Wright (2009) highlight four waves of research on resilience undertaken by developmental researchers. Initial resilience investigation focused on identification, description, and measurement, including expanding the understanding of the presence or absence of resilience in at-risk populations, such as Werner's initial work (e.g., 1990) and Masten's influential work on homeless and underprivileged youth (e.g., Masten & Coatsworth, 1998; Masten et al., 1993, 1997). The second wave of resilience research moved beyond these descriptors and instead aimed to better understand the "how" of resilience, focusing on processes that may lead to resilient outcomes and began to incorporate compensatory, protective, and moderating factors. During the third wave, the understanding of resilience expanded through the implementation of intervention programs designed to enhance resilience in children, building on the important work of Brooks and Goldstein (2001), which focused on family and parent recommendations that may build or strengthen resilience in children. As well, the resilience framework began to move into the classroom environment, initiating the link between education and resilience (e.g., Song, Doll, & Marth, 2013). Finally, the fourth wave of research has recently moved into the genetic and neurological contributions to resilience, examining the processes that may affect resilient outcomes at a biological or neurological level (e.g., Masten, 2007).

The focus of the current chapter falls firmly within the third wave of resilience research, with an emphasis on understanding and promoting resilience in children. Although it is acknowledged that research has continued to progress from this intervention focus into the neurological and biological underpinnings of resilience, the authors of this chapter argue that there should be a continual focus on creating, implementing, and modifying programs that focus on building resilience in children. At the current stage of research, there are no "quick fix" programs that reliably enhance resilience in children and thus the argument can be made that there should be a continued focus on developing and expanding this third wave. As well, as Song et al. (2013) note, the link between education and resilience is vastly underresearched and provides an excellent opportunity to explore possibilities within a school-based intervention framework.

Strengths-Based Focus

Recently, resilience models have strived to become less deficit-focused and instead more centered on areas of success for children (e.g., Climie, Gray, & Deen, 2013; Mastoras, Climie, Schwean, & Saklofske, 2010). The resilience paradigm has begun to include the recognition that all individuals have the ability to develop emotional strength and that their success may be determined by how they cope with adverse situations (Burt, Obradović, Long, & Masten, 2008). The shift in focus from "disability" to "ability" has resulted in a research focus that aims to promote and expand upon areas of competence in children in addition to helping minimize areas of weakness.

Taking this strengths-based approach to working with children has a number of benefits. As first discussed by Brooks and Goldstein (2001), many children who experience widespread difficulties (e.g., behaviorally, academically, socially) also demonstrate individual areas of competence. These areas, deemed "islands of competence" by Brooks and Goldstein, highlight the important notion that all children have some area of strength that can be fostered and built upon. Indeed, it may be the responsibility of the supportive adults in a child's life to bridge connections between these "islands" to develop more broad areas of ability, thus increasing the overall competence and confidence of the child.

Logically, considering this strengths-based framework, the next step focuses on how this new research direction may be used to support or enhance resilient skills in children, allowing them to achieve to their potential (Sapienza & Masten, 2011; Terjesen, Jacofsky, Froh, & DiGiuseppe, 2004). As such, it is necessary to continue the movement towards translating research into practice and ensuring that empirical research may be implemented in real-life situations.

There are a number of previously identified factors that may be influential in the development of resilient children, including parent–child attachment, intelligence, or effective support from parents, teachers, or other adults (e.g., Sapienza & Masten, 2011). However, many of these factors focus on the individual child and his or her family and comprise significantly less focus on the inclusion of teachers and school environments. As such, there is a need to expand the focus of intervention research to incorporate school-based supports for children who may benefit from this instruction.

School-Based Intervention

School-based intervention has been traditionally focused on academic pursuits and yet social-emotional well-being is a key aspect of child development (Kratochwill, Albers, & Shernoff, 2004). A focus on social-emotional well-being has only emerged over the past two decades and yet understanding and enhancement of these skills continue to lag (Flett & Hewitt, 2013; Greenberg, 2004; Greenberg et al., 2003). Providing school-based intervention programming or services that seek to enhance well-being in children and youth may be an under-utilized approach to supporting the development of these skills in children.

School-based interventions are, as the name implies, support programs that take place within the school context. Services are delivered by school-based personnel (e.g., resource teachers) or by professionals associated with the school jurisdiction (e.g., school psychologists) or local health region (e.g., mental health therapists, speech and language therapists, and occupational therapists), with the goal of providing support for the child in his or her school environment.

Engaging in school-based intervention has many advantages over traditional clinic-based services (Kratochwill et al., 2004; Watabe, Stewart, Sarno Owens, Andrews, & Griffeth, 2013; Weist et al., 2000). First and foremost, children spend a

majority of their time in the school environment, providing easy access for practitioners to connect with vulnerable children. Indeed, for some families, this school-based access to services may be the only opportunity for the child to receive intervention (Burns et al., 1995), as there may be a number of factors limiting external supports (e.g., parent work schedule, transportation issues, financial burden of services). As school-based intervention meets the child in his or her environment, many of these barriers may be reduced or eliminated. Atkins et al. (2006) found significant differences in enrollment in a mental health support program between school-based and clinic intervention. Of those referred to services through a school mental health program, approximately 80 % followed through and enrolled; however, when looking at those who enrolled in a clinic-based program, only 55 % of participants followed through and sought additional support. As well, retention in these programs was significantly different, with 100 % of those children enrolled in the school-based support remaining in the program 3 months later as compared to 0 % in the clinic-referred sample. In addition, this access to support may allow children to receive more services in a timely manner and provide more consistency between service providers. For example, for children who receive multiple services, there may be opportunities for professionals to meet with the school and parents together to discuss a treatment plan for the child, thus providing more wrap-around and continuous care for the individual child.

However, along with the benefits of school-based intervention, there are also some challenges that must be overcome. For example, from a practical perspective, finding appropriate time to meet with the child may be challenging, given that academic achievement is, and will continue to be, a primary concern within the education system (Kratochwill et al., 2004). Juggling field trips, sick days, and important school activities may provide an additional challenge for the service provider to access the child. As well, even if a child's parents have provided consent for the child to receive additional services, the child must also engage in the process. Without commitment from the child, intervention is likely not going to be successful, no matter where it is implemented. Finally, the important role of teachers in identification and understanding must not be forgotten. The current state of mental health literacy in teachers is concerning and it is possible that many students with mental health concerns may not be recognized and therefore supports or services not implemented (Whitley, Smith, & Vaillancourt, 2013). So, how do we appropriately and actively engage children in school-based intervention so that they may benefit from this support? How can supports be targeted to reach out to those who may need it most?

Response to Intervention

Over the last few years, there has been a significant movement towards a Response-to-Intervention (RTI) model in the United States (Lyon et al., 2001). At a general level, RTI is a decision-making model, whereby specific criteria are identified to indicate student mastery or competence in a particular area (Christ, Burns, & Ysseldyke,

2005; Fuchs & Fuchs, 2006). The basic notion of the RTI approach is that when provided with effective supports, a student can respond or not respond adequately to an intervention and this information can then be used to guide service delivery decisions for the child (VanDerHeyden, Witt, & Gilbertson, 2007).

An RTI model incorporates a tiered approach to supporting children in a school. At the lowest level, tier one, the focus is on whole-school or class-wide support, where all children in a class or school receive evidence-based curriculum and supports to aid in development across a number of domains, including academic, behavioral, and social-emotional well-being. For a majority of students, this broad approach is sufficient, and these students make acceptable gains at the expected rate.

However, for the students who are slow to progress using this general method (approximately 8–10 % of the typical student population), additional interventions or supports are put into place to try to get the students back on the expected track. These children are moved to a tier two level of support, where they may receive interventions such as additional small group support for reading, social skills groups, or small group intervention (e.g., children with mild anxiety). The goal of this level of support is to return children to the regular classroom so that they are able to be successful within the tier one environment.

Finally, for those students who still do not make adequate progress at the tier two level (approximately 2–5 % of students), the most intensive level of support is applied at tier three. Often this level of support involves individual psychoeducational assessment, one-on-one tutoring, or individual counseling, representing a significant commitment of time and resources by the school on behalf of the individual student, with the goal of moving the student back down to tier two or, ultimately, tier one support.

Although the RTI approach to supporting students has benefits and drawbacks, it is the current model in place across many school jurisdictions. As Greenberg et al. (2003) noted, the focus of intervention is moving towards an incorporation of social-emotional well-being, indicating positive steps in the RTI framework for mental health and social-emotional well-being. It is well established in the literature that there is a clear link between social-emotional well-being and academic achievement (e.g., Cohen, 2006; Greenberg et al., 2003; Roeser, Eccles, & Sameroff, 2000); as such, it would logically follow that an RTI model could and should be used to help support and enhance the social-emotional well-being of individual students.

Linking Resilience and School-Based Intervention

The integration of a strengths-based approach to children has led to a more positive outlook on abilities. Indeed, the traditional approach of focusing on problems and abnormalities may be replaced by examining preventative treatments and programs that build capacity to help prevent the onset of difficulties (Terjesen et al., 2004). Therefore, an exploration of the possibility of building resilience through school-based intervention is clearly warranted.

There is a dearth of literature specifically examining resilience-focused interventions in a school environment. Although there are programs focusing solely on specific social-emotional difficulties, such as anxiety (e.g., Neil & Christensen, 2009) or depression (e.g., Spence & Shortt, 2007), there is limited literature on building resilience in children. The few programs that generally fell within these parameters looked at promotion of resilience in a population of students exposed to significant trauma and tragedy (e.g., children living in war-torn environments; Baum, 2005) and did not incorporate a larger scale intervention approach. A recent article by Canadian researchers Schwean and Rodger (2013) stresses the importance of health care reform that considers not only a child-focused perspective but also the importance of building capacity and resilience in vulnerable populations.

Most resilience-focused programs in schools tend to focus on tiers two or three in the RTI model; the focus is on a small subset of children who may be at risk for poor outcomes (e.g., children with divorced parents). These children receive service because they have demonstrated more social-emotional difficulties than a majority of their classmates and intervention is provided to try to reduce difficulties and return them to an average or more stable level of functioning. However, it may also be useful to implement resilience programs from a whole-school or classroom-wide perspective, in line with tier one supports of the RTI model. A focus on tier one intervention would truly provide a preventative program, with all students receiving support so as to reduce the later occurrences of social-emotional difficulties.

Together, there is a clear indication that building resilience in a school-aged population at the school level is a worthy avenue of exploration. Indeed, the incorporation of resilience-building activities and programs into schools may result in stronger, more competent students who are better able to learn and engage with academic activities. In particular, this connection between building resilience and school-based intervention may be especially important for children who are at increased risk of poor outcomes (e.g., academically, socially), as these children may represent the most vulnerable segment of the school population and may therefore benefit from additional resilience-linked intervention.

At-Risk Children

In recent research, a better understanding of the factors that place children at risk for future adverse outcomes is becoming more prevalent. Researchers are continuing to expand their interests from children who are currently in adverse environments (e.g., high rates of poverty, family mental health issues, domestic violence) to those who may be at risk for future difficulties (e.g., diagnosis of ADHD, learning disability [LD], or other mental health issue).

In today's society, the number of children identified as having some form of exceptional learning need is staggering. Indeed, 10–15 % of children struggle with mental health concerns and yet less than half actually receive services

(Merikangas et al., 2010). Rates of autism spectrum disorder have reached new highs of one in every 50 children (Blumberg et al., 2013). Of particular relevance for the current chapter, prevalence rates of ADHD in children and youth range from 3 to 10 % (Centers for Disease Control, 2010) and prevalence rates of those with learning disabilities are approximately 7–8 % (Centers for Disease Control, 2010). Importantly, there is significant comorbidity between these two disorders, with approximately a 45 % overlap between ADHD and LD (DuPaul, Gormley, & Laracy, 2013). With updates and changes in the new Diagnostic and Statistical Manual of Mental Disorders—Fifth Edition (DSM-V; American Psychiatric Association, 2013), more research is needed to determine if these comorbidity rates will stay constant given the new identification criteria for ADHD and LD (DuPaul et al., 2013) and how prevalence rates may change.

Children with ADHD or LD

Children with ADHD or LD face substantial risks for negative outcomes, especially within the social-emotional domain. Although ADHD and LD are distinct disorders, they often share common social-emotional difficulties. For example, children with LD are at higher risk for developing characteristics of both anxiety and depression, although these symptoms may not reach clinically significant levels (Nelson & Harwood, 2011; Ofiesh & Mather, 2013). As well, children with LD often experience high rates of failure, leading to lower motivation to persevere with new or challenging tasks and decreased levels of self-esteem (Ofiesh & Mather, 2013). Similarly, children with ADHD often demonstrate comparable social-emotional difficulties as children with LD. Those with ADHD are also at an increased risk of developing comorbid anxiety (e.g., Houghton, Alsalmi, Tan, Taylor, & Durkin, 2013) or depression (Wilens et al., 2002), along with other more significant behavioral difficulties such as oppositional defiant disorder (Goldstein & Rider, 2013).

Given the significant comorbidity rates between ADHD and LD, it is no surprise that approximately 45 % of the ADHD population is also identified as having a specific learning difficulty (DuPaul et al., 2013). This added risk on top of an already challenging disorder may compound the difficulties faced by these children, especially within the social and emotional domains (e.g., self-esteem, self-concept, self-confidence). Indeed, these children may be at greater risk for academic failure, limited social opportunities, and decreased coping abilities (DuPaul et al., 2013). They may require significant additional individual support to meet expectations consistent with those of their peers and are often challenging to motivate in the classroom. It is these children who may stand to benefit the most from resilience-focused school-based intervention.

So the questions remain: How do we engage at-risk children in school-based intervention so that they may benefit from this support? How can supports be targeted to reach out to those who may need it most?

Engaging Youth in Play and Physical Activity

When looking at the profile of a resilient child, the environmental characteristics that foster the development of resilience must be examined. School has become an important haven for a growing number of children, acting as a protective factor to help children endure the multiple pressures that they can expect from a stressful world (Benard, 1993). Specifically, a school that provides opportunities for student participation can help protect and nurture at-risk children. As well, children can also use school activities as a support for healthy social and emotional adjustment and achievement. One such way to support these children may be through a more purposeful involvement of physical activity in each school day.

Youth Participation and Play

Providing children with opportunities for active participation within the school environment fosters responsibility and enables students to take ownership over their school experience. One such avenue that can allow students to actively participate within the school environment is a varied curriculum. A curriculum that provides students with various opportunities to be successful in a number of areas and not just academics, or that values the strengths and interests of each student may be more motivating, so that students are more inclined to participate in school activities. Furthermore, a varied curriculum that enables children to spend time in play can help build student engagement as well as support their social and emotional well-being (Ginsburg, 2007).

"Play" is a term used in psychology to describe a range of voluntary, intrinsically motivated activities associated with pleasure and enjoyment (Zhang, Solmon, Kosma, Carson, & Gu, 2011). Play has a vital role in the learning and development of children from infancy through adolescence (Isenberg & Quisenberry, 2002) and allows children to be creative while concurrently developing physical, cognitive, and emotional strength. Specifically, supervised play enables children to safely explore their environment as well as help them conquer their fears. As a result, children develop increased confidence and resilience that they may need to face future challenges (Band & Weisz, 1988; Blasi & Hurwitz, 2002). Play is also important for healthy brain development. For example, Jensen (2000) noted that play makes the brain more active, which results in the formation of permanent neurological connections critical to learning. Additionally, a child's developmental trajectory can be mediated by positive, affective relationships with caring and consistent adults as they relate to children through play (Fromberg, 2002; Ginsburg, 2007). Specifically, the interaction that occurs between parents and children when they play together not only helps to create enduring relationships but also shows children that their parents are paying attention to them. Given this research on the positive impact that play has on the development of children across various domains, it may be important to

incorporate play within the school environment to ensure that children continue to develop positive cognitive as well as social and emotional outcomes.

Researchers have also considered that integrating play within the school day can help children adjust to the school setting and enhance learning readiness, learning behaviors, and problem-solving skills (Coolahan, Fantuzzo, Mendez, & McDermott, 2000; Fantuzzo, Bulotsky, McDermott, Mosca, & Lutz, 2003). Numerous studies have found that when children play with others within the school environment, they have the opportunity to learn social skills (e.g., observing age appropriate behavior, learn perspective taking), become sensitive to the needs and values of others, handle exclusion and bullying, manage their emotions, and learn self-control (Creasey, Jarvis, & Berk, 1998; Hausfather, 1996). Within the classroom environment, making time for children to play can also teach them how to work in groups, to share, to negotiate, to resolve conflicts, and to learn self-advocacy skills. Additionally, supervised play and play contexts may support intrinsic motivation by evoking positive emotions. In particular, Isenberg and Quisenberry (2002) found that positive emotions (e.g., curiosity) improve motivation and facilitate learning by engaging children, which enables them to focus on a task. Since play is intrinsically motivating, children see it as being interesting, personally relevant, meaningful, and suitable to their abilities. Finally, incorporating various types of play within the school environment allows students the opportunity to exercise personal control and feel competent about their abilities (Fromberg, 2002).

Play may occur in a variety of formats within the school environment. Isenberg and Jalongo (2010) highlighted four types of play that children often engage in: (1) motor or physical play—children develop gross and fine motor skills through the overall integration of muscles, nerves, and brain functions; (2) social play—children interact with others in play settings and learn social rules; (3) constructive play—children manipulate their environment to create things; and (4) fantasy play—children learn to think abstractly, to try out new roles and possible situations, and to experiment with language and emotions. Although each of these aspects of play may have an important impact on development, for the purpose of the current chapter, the focus of research and discussion will center on motor or physical play.

McCune and Zanes (2001) note that motor or physical play is required for healthy brain growth, particularly those parts of the brain essential for regulating behavior and emotions. Consequently, it may also have significant implications on learning. Therefore, it can be argued that the incorporation of motor or physical play within the school context warrants further attention by schools considering its positive impact on attention, memory, self-regulation, and academic achievement throughout childhood (Castelli, Hillman, Buck, & Erwin, 2007; Pellegrini & Bohn, 2005).

Physical Play and Social-Emotional Well-Being

Motor or physical play is closely related to the development and improvements of children's gross and fine motor skills as well as their body awareness (Holmes &

Geiger, 2002). When children are also given the opportunity to have fun and energetically use their bodies in physical play, they are simultaneously developing skills that help them feel confident, secure, and self-assured (McCune & Zanes, 2001). An important aspect of motor or physical play is physical activity. When children participate in physical activity throughout the school day (e.g., physical activity breaks, recess, and physical education classes) they are engaging in motor or physical play. Physical activity is an important aspect in schools because children, regardless of their physical or motor abilities, can learn about their surrounding environment through movement. For example, children learn about wins and losses, achievements and frustrations, goal-setting, and problem-solving. Physical activity also provides most students with unique opportunities to move and enjoy actions such as running, throwing, catching, and balancing while encouraging them to respond to challenges to the mind and body, to participate, to compete, and to cooperate with others (Bernstein, Phillips, & Silverman, 2011). Additionally, for those students with physical or motor impairments, school staff can modify physical activity tasks based on the needs of each child (e.g., different-sized equipment, low impact exercises) so that every child can participate, interact with his or her peers, be successful, and gain confidence in his or her abilities.

Recent research has suggested that aerobic physical activity performed at a moderate-to-vigorous heart rate (HR) for 20 min or more results in improved brain functioning across a number of domains, including learning, memory, attention, mental health, and stress (Ratey, 2008). Moderate aerobic physical activity can include brisk walking or playing games that require catching and throwing while vigorous aerobic physical activity can include running, jumping rope, active games involving running and chasing, and aerobics (Centers for Disease Control (CDC), 2011). Furthermore, the moderate heart rate (HR) zone is defined as 64–76 % of an individual's predicted maximum heart rate (HRmax = 220 − age) and the vigorous zone is 77–93 % of an individual's predicted maximum heart rate (Howley & Franks, 2003). Recent studies conducted with both animal (e.g., Pereira et al., 2007) and human participants (e.g., Colcombe et al., 2004) also indicate that moderate-to-vigorous intensity aerobic exercise performed daily for several weeks can modify brain functions that control cognition and behavior. Aerobic physical activity creates a variety of biological responses in muscles and organs that may change and regulate structures and functions of the brain that positively impact cognitive functioning, depression and anxiety, mood, and self-perceptions (Dishman et al., 2006). Additionally, the International Council of Sport Science and Physical Education (ICSSPE) (2001) established that daily aerobic physical activity performed at a moderate-to-vigorous heart rate not only contributes towards the integrated development of body and mind but can also improve social functioning as well as increase self-esteem and self-confidence.

Purposeful engagement in frequent physical activity with other children has the potential to produce positive social behaviors such as cooperation, responsibility, and empathy in children. Svoboda (1994) highlights that regular physical activity involving group activities or team sports provides opportunities for children to communicate with other individuals, to take different social roles, to learn tolerance and

respect for others, and to adjust to team or collective goals (e.g., collaboration and cohesion). It is important to note, however, that the social learning processes that occur during physical activity require modeling and positive reinforcement from adults (e.g., parents or school staff). The appropriate teaching and coaching of positive social behaviors during physical activity can promote positive character development in children. For example, teachers who set a positive climate by being respectful, fair, and honest with students during physical activity act as role models of positive social behavior and are also integral to the enjoyment of physical activity.

The benefit of incorporating physical activity that includes group activities and adult participation within the school environment lies in the attainment and amassing of various personal, social, and social-moral skills which may also support children in functioning successfully and appropriately in a broad range of social situations. Conversely, potential drawbacks of not including group-based physical activity within the school environment include disengaged students as well as the possibility of a higher rate of students participating in antisocial or criminal behavior (Andrews & Andrews, 2003). Physical activity that encourages children to participate with an adult as well as with peers can be an appropriate vehicle for the promotion of personal and social responsibility in at-risk children. In particular, the social component of participation and the need for individuals to work collaboratively and positively during physical activity can foster numerous skills such as trust, a sense of community, empathy, and cooperation in children's relationship with their peers and with adults. Furthermore, these skills and positive relationships may help all children develop resilient skills that help them manage difficult life circumstances.

Following a review of the literature, Mutrie and Parfitt (1998) concluded that physical activity is also positively related to improved emotional health (e.g., reduced stress, anxiety, and depression as well as improved self-esteem) among various populations. Indeed, continuous moderate-to-vigorous aerobic physical activity for 30 min per day has been related to improvements in mood and stress levels even after a single session (Paluska & Schwenk, 2000). Numerous psychological mechanisms have been proposed to describe the positive effects of aerobic physical activity on emotional health. One possible psychological mechanism is Bandura's (1978) self-efficacy theory. In particular, confidence in one's ability to participate in physical activity may be related to one's actual ability to perform the task. Since aerobic physical activity may pose a challenging task for individuals with mental health difficulties, successfully adopting regular aerobic physical activity may produce an improved mood, increased self-confidence, and enhanced ability to deal with situations that affect one's mental health (Gauvin & Spence, 1996). A second proposed mechanism involves the mastery hypothesis, which suggests that command of a difficult activity such as physical activity can create a sense of independence and success (Paluska & Schwenk, 2000). As individuals become more confident and obtain mastery of their physical skills, they may transfer these feelings of control and success into their everyday lives. Finally, the social interaction hypothesis proposes that the social relationships and reciprocal support that individuals provide each other during group-based physical activity can account for

a substantial portion of the positive effects of physical activity on emotional health (North, McCullagh, & Tran, 1990). Indeed, this effect is often observed when considering team sports (e.g., soccer) or activities (e.g., a running or walking group).

For at-risk children, incorporating more enjoyable and attainable tasks such as physical activity within the school day may motivate them to attend school and become productive members of the school community. For example, Fejgin (1994) found positive outcomes in regard to student attendance following the introduction of a physical activity program and that an increase in the availability of such programs may make the school experience more attractive to at-risk students. More recent studies have also started to focus on the physical self (which consists of self-ratings of the body, its appearance, and its capabilities and worth) in relation to self-esteem in at-risk children (Fox, 2000). Evidence suggests that consistent moderate-to-vigorous physical activity can positively change perceptions of physical self and identity in this population of children (Andrews & Andrews, 2003). Perhaps, for at-risk children who have low self-esteem, the positive effects of continuous moderate-to-vigorous exercise on their physical self (e.g., weight loss, improved endurance and strength) may extend to more generalized changes in self.

Although research demonstrates the importance of physical activity in promoting social and emotional well-being, intensified standards of learning and academics have forced schools to focus on a narrow view of learning where students have less time and opportunity to participate in physical activity. As a result, questions arise as to how schools can incorporate more physical activity into the school environment.

Case Study: SPARK for Learning

Although physical education classes are included in both Canadian and American school curriculums, the SPARK for Learning program is an example of a physical activity intervention that can be integrated into the school day in addition to these regular physical education classes. In particular, this aerobic physical activity program is part of a school-wide initiative within an urban middle-school to improve the behavioral and social-emotional functioning of all students. However, the target population for the current chapter is children and youth who have been identified with an LD and/or ADHD.

Rationale for SPARK for Learning

SPARK for Learning was developed and implemented by the authors of this chapter as a result of student disengagement with school as well as a high prevalence of behavioral and social-emotional concerns (Climie & Deen, under review). Specifically, teachers reported that since students were on the bus for extended periods of time before school, the students seemed unable to regulate their alertness in

class and, therefore, were reluctant to participate or engage in classroom activities. Teachers also indicated that a large number of students diagnosed with ADHD experienced difficulties in class sustaining their effort and attention and inhibiting their behaviors. Additionally, some of the parents of children diagnosed with ADHD were cautious about pursuing stimulant medication treatment for their child due to tolerability and side effects; as a result, staff members were struggling to manage the behavior and social-emotional well-being of these particular students.

Teachers observed that students were also struggling with social conduct and overall social-emotional adjustment due to their inability to regulate behaviors such as impulsivity, intrusiveness, aggression, and emotionality. For example, many students had poor conversational skills, utilized aggressive solutions to interpersonal problems, experienced difficulties working with peers in their class, and were unable to regulate their anger when conflict or frustrations were experienced in social situations. Furthermore, staff members noticed that a significant number of students had a propensity to be negative and defiant, less cooperative with teachers and students, and less independent.

Most importantly, staff members and specific students seemed disconnected from one another. Teachers felt that they were constantly reprimanding select students for inappropriate behaviors while these students felt that they were receiving more correction, punishment, rejection, and criticism by their teachers and peers compared to other children in the school. Staff members and students were unable to build positive relationships with one another, which had a significant impact on classroom climate and, consequently, on the overall school community.

Taking all of the above factors into consideration, SPARK for Learning was created to support staff members and students with managing behavioral and social-emotional outcomes using a safe, healthy, and manageable source of intervention. Given the research on the effects of aerobic physical activity on the behavior and social-emotional functioning of at-risk youth, it was anticipated that SPARK for Learning could help all students in the school manage their behaviors and regulate their emotions as well as develop positive values, life skills, and self-esteem. Additionally, with all staff and students working out together, it was anticipated that SPARK for Learning would enhance the school climate and make school an enjoyable and safe place to be for all students.

"SPARK for Learning" Program

Initial implementation was in one school in a large urban area in Western Canada. Since initial implementation, additional schools have indicated interest in participation and the program has since expanded to include a variety of classrooms and schools across public and separate school systems in the city (data from these schools is being collected in the 2013–2014 school year). At the pilot school, all students ($n=84$) and teachers ($n=7$) participate in the SPARK for Learning program throughout the year as part of regular school curriculum. However, only those

children whose parents gave permission for them to participate in the research component were included in the final sample ($n = 73$). All children at this school had a previous LD identification, and of the final research sample, approximately 35 % ($n = 25$) were also identified as having ADHD. A number of other comorbid identifications were also present, including issues related to communication ($n = 10$), mild/moderate social-emotional or behavioral concerns ($n = 8$), and severe social-emotional or behavioral issues ($n = 2$). However, given the rates of comorbid difficulties in children with LD, these proportions are consistent with what would be expected. Finally, all additional school staff (e.g., educational assistants, custodial staff, reception personnel, and school administrators) also participated, although they were not included in data collection for this study.

All participants engaged in 20 min of continuous moderate-to-vigorous aerobic physical activity during the first period of every school day. The exercise activities consist of fitness circuits in the hallways and classrooms, a modified game in the gym or outside (e.g., team games that involve constant running and/or tag games), or a workout video in classrooms. The fitness circuits in the hallways and classrooms as well as the workout videos are designed to sustain moderate-to-vigorous aerobic physical activity levels within the context of tasks that require students to utilize various motor skills (e.g., jumping, skipping, hopping, and running). The modified games were designed by teachers and students and not only target several motor skills but also involve cooperation since most of the games consist of students working collaboratively with their classmates and teachers towards a common goal. Students engage in all of the activities as a class with their teacher and each day participate in a different scheduled activity.

A significant component of SPARK for Learning was that students wear a heart rate monitor to motivate them to adhere to and to monitor their physical activity intensity (e.g., moderate-to-vigorous intensity). The purpose of the heart rate monitors was to allow students to see how hard they are working and use the monitors as a guide to increase the intensity of their workouts if their heart rates are too low. Students were taught how to use the heart rate monitors during physical education classes. Specifically, content included heart rate monitor skills, education about heart health, and the rationale behind the SPARK for Learning program. It is important to note that when students noticed that their heart rates are not in the moderate-to-vigorous heart rate zone, they often work harder or motivate one another to increase their heart rates. Staff members also encouraged and motivated students either verbally or through modeling to increase their heart rates when they observed that the students were not in the required heart rate zone.

Teacher Training

At the beginning of the year, school staff and classroom teachers attended a professional development workshop that explained the rationale for the SPARK for Learning program, including the previous research surrounding the benefits of daily physical activity (e.g., highlighting the work of John Ratey). This training included

a detailed explanation of the SPARK for Learning program and the implementation strategy. Given that the program was implemented school-wide, teachers did not need to create individual activity plans for their classrooms. Instead, one teacher coordinated all activities for the SPARK for Learning program and provided teachers with a rotation schedule so that they knew what activities their class would be participating in each day. As well, teachers were briefed on the use and importance of the heart rate monitors and shown how to use them.

Finally, the role of the teacher in the SPARK for Learning program was emphasized. It was highly encouraged that teachers actively participate themselves, as doing so would provide an excellent model for their students. Teachers were instructed to ensure that children were active throughout the 20 min session and that the emphasis was on movement, not mastery of activities. They were encouraged to provide ongoing support and motivation to their students and to help students resolve disputes quickly and calmly, using classroom management techniques similar to those that were in place in their own classrooms. Overall, the teachers left the training sessions with the knowledge and rationale for the program and seemed excited to implement the program in their school and classrooms. Throughout the school year, there were continual individual check-ins (monthly, sometimes more frequently, depending on the amount of support required by the individual teacher) with each teacher to ensure that any questions could be addressed in a timely manner and issues dealt with promptly.

SPARK for Learning and Social-Emotional Outcomes

SPARK for Learning has played an influential role in developing a positive and fun learning climate within the school. During each SPARK for Learning session, the emphasis is on participation and effort and not on skill mastery or competition. Students are encouraged to keep their heart rates in the target zone (moderate to vigorous) for the duration of the 20 min program to ensure that they receive maximum benefit from their physical activity. Students of varying abilities are often participating beside one another in the same activity. There is limited risk if students are unable to perform an activity as competently as one of their peers (e.g., criticism or reprimand) because students are encouraged to enjoy the activity rather than compete against one another. For example, if the students experience difficulties completing a circuit activity they are encouraged by staff and peers to modify the task to meet their ability level (e.g., changing a squat jump to jumping jacks) or they are encouraged to skip the difficult activity and move to the next one. Students are able to play and have fun in an environment of trust in which they succeed together. Additionally, staff members frequently monitor the activities to ensure that all students are included. As a result, students feel that they can safely, competently, and successfully participate in the program within an accepting and welcoming school environment.

SPARK for Learning is also framed within a climate of caring adults. Foremost, staff members join in the activities with the students, a playful interaction that is well received by the students. Through this interaction, teachers are able to use encouragement and praise (e.g., verbal cheering and encouragement as well as high-fives) to increase opportunities for students to build positive and trusting relationships with each other and staff members. When students feel encouraged, guided, and supported by trusting adults and peers, their self-concept can improve. The development of a positive self-concept empowers students to feel competent, try new things, and strive for success. Furthermore, staff members are able to offer warm, consistent, stable, and non-hostile attachments through social reinforcement of particular values (e.g., participation, respect, cooperation, and responsibility) and modeling. SPARK for Learning provides a promising context for developing pro-social skills and values because staff members are able to focus on situations that arise naturally during activities (e.g., sharing equipment, taking turns) and then model appropriate responses through their own behavior. For example, staff members can model and reinforce skills like team work, good sportsmanship, and fair play. The continued presence of staff members who explicitly model these same behaviors has led to many of the more skilled students taking on a leadership role by assisting less skilled students (e.g., passing to them, explaining how to play the game, or coaching). Student leaders can also teach their peers appropriate skills during SPARK for Learning by modeling appropriate behavior (e.g., being respectful and encouraging, demonstrating patience and good sportsmanship) as well as cueing and prompting their counterparts to behave appropriately.

One unanticipated benefit of the SPARK for Learning program was the development of stronger cooperation between classmates. Although a majority of activities in the program emphasize collaborative tasks to encourage students to support one another and work together as a team, this was not a direct focus of the program. Cooperation among classmates promotes other pro-social behaviors such as helping, sharing, collaborating, and treating others with respect and kindness. When classmates respectfully cooperate with one another during SPARK for Learning, they are building a positive classroom atmosphere that becomes conducive to taking challenges or risks without fear of ridicule. A positive classroom environment can be the building block in developing students' self-efficacy so that they are able to tolerate frustration and stress and confront challenges until they accomplish their goals. Additionally, when participating in the program together students often encourage one another to be persistent through the use of verbal comments that acknowledge the difficulty of the task (e.g., "last time you gave up at this point so keep going!") and promote enduring performance (e.g., "do not give up," or "keep running for one more minute"). By encouraging one another to persevere, students learn to cope with, rather than avoid, difficult tasks, thus gaining an opportunity to experience the success of their effort and determination. Although the changes reported here are qualitative and not quantitative, teachers verbally reported significant changes in their students and the level of cooperation in the classroom. One teacher noted, "My students used to argue quite a bit, but over the course of the year, they seem to become more patient with one another. They began to encourage each

other, not only in SPARK (for Learning) but also in classroom work as well" (SPARK for Learning participating school teacher, personal communication, June 23, 2012).

A final key element of SPARK for Learning is that it fosters autonomy within students by offering as much activity choice as possible. As a result, students consistently feel engaged and motivated. The program is flexible enough to allow students to choose how they want to participate, which enables them to feel that they have control or ownership over their own learning. This flexibility, in turn, helps them develop a sense of responsibility and self-motivation. For instance, students are encouraged to skip over parts of the circuit that they do not feel comfortable doing and move on to the next component of the circuit. Individual students can also opt out of the group activity if they feel uncomfortable about participating with their classmates and can choose to go for a walk with another staff member or participate with another class without a negative consequence. Students have embraced this choice and report that it gives them a sense of ownership over their activities. One grade five student noted, "I really like SPARK for Learning because I get to choose the activities that I do. If some of it is too hard then I just go to the next activity and no one gets mad at me" (participating student, personal communication, June 13, 2012).

Overall, SPARK for Learning has the potential to foster resilience within at-risk populations because of its impact on the development of social relationships, positive attitudes and emotions, and feelings of competence. Foremost, positive social relationships can promote learning and positive feelings towards school. For example, a grade six student participating in the program explained, "I get to work out with my classmates and with my teacher. This makes the relationship with my friends and teacher better. I feel happier coming to school because I know that I get to play with them during SPARK (for Learning)" (participating student, personal communication, June 13, 2012).

The program has also improved the attitudes and emotions of students and staff members. Participants often encourage one other to try or to persevere until success is attained. One grade five student stated, "I like working out with other students in my class because sometimes I feel like I cannot run anymore and then my friend tells me to keep going, which makes me want to work harder." Additionally, a grade four teacher commented, "SPARK for Learning has improved my classroom environment. Students seem happier, more focused, and they enjoy spending time with one another. The students also frequently encourage and motivate each other during the activities, which makes them feel included, respected, and successful" (teacher, personal communication, June 23, 2012).

Lastly, the SPARK for Learning program supports students in feeling competent about their skills and abilities by focusing on their strengths, empowering them to make decisions about how they participate in the program, and avoiding comparisons between students. In particular, a grade four student reported, "When I came to this school, I was not good at any subject. But with SPARK (for Learning), I can do the activities and I have fun doing them. I also like that if I cannot do an activity, I can change it a little so that I can do it. All I need to remember to do is keep moving and try my best" (participating student, personal communication, June 13, 2012).

Empirical data collection has focused primarily on social-emotional and behavioral outcomes. Data was collected from both students and teachers at two time points: the beginning (October) and the end of the school year (May). Social-emotionally, preliminary student reports from the Behavior Assessment System for Children—2nd edition (BASC-2; Reynolds & Kamphaus, 2006) have found a significant decrease in levels of anxiety over the course of the year (all $p < 0.05$; for more information, see Climie & Deen, 2013; Climie & Deen, under review). As well, teachers reported significant decreases in physical complaints (e.g., stomachaches or headaches) and an increase in both adaptability and leadership (all $p < 0.05$; for more information, see Climie & Deen, 2013; Climie & Deen, under review). Both of these results were encouraging, as it appeared as though students were becoming more comfortable and confident in their classroom groups. As well, they were better able to adapt to changes in classroom routines and demonstrate leadership in certain situations. One teacher noted that her students seemed "more confident, less anxious, and more willing to work on classroom material that they found challenging" (teacher, personal communication, June 23, 2012).

Behaviorally, students reported significantly decreased levels of attention problems, hyperactivity, and inattention in the classroom (all $p < 0.05$; for more information, see Climie & Deen, 2013; Climie & Deen, under review). Teachers report similar findings, with a significant decrease in hyperactivity/impulsivity and attention problems (all $p < 0.05$; for more information, see Climie & Deen, 2013; Climie & Deen, under review). These results were perhaps the most pleasing for the teachers, as they noted that they were able to cover more curriculum and that students were more receptive to the information. Given the academic challenges of the students at this school, an increased level of attention and decreased behavioral difficulties allowed the students to absorb more curriculum content. Although academic changes were not measured as a result of this program, teachers reported that they believed that SPARK for Learning allowed students to be better prepared (cognitively and emotionally) for learning.

Future Research Direction

Through the SPARK for Learning program, children have begun to lay the foundation for a stronger, more resilient outlook on life and develop a number of crucial skills, including cooperation, team work, and acceptance. The SPARK for Learning program has been running in a single school for the past 3 years. These promising preliminary results have encouraged expansion of the program by other schools to examine the impact of SPARK for Learning on a larger population of children, incorporating both those with exceptional learning needs and those in a regular classroom environment. During the 2013–2014 school year, the program has expanded significantly, with a broad range of schools indicating interest in participation. As such, it is anticipated that our research focus will also expand, as we now have the opportunity to work with a gifted population as well as with regular education classrooms and

schools. We also anticipate focusing on more specific aspects of child well-being, including resilience, emotional regulation, and self-esteem, along with a better understanding of changes in school culture and teacher involvement.

Limitations of Program

It should be noted that, as with any research project, there are a number of limitations to the current study. First, despite the encouraging preliminary findings of this project, this project is in the preliminary stages of research. The current sample comprises solely children with LD and SPARK for Learning has not been systematically examined within a typically developing population (although, of note, there would be no programmatic changes for individual populations—the program would operate in the same form no matter the participants' demographic characteristics). Second, all participants in this project are aware that they are participating in the program. This knowledge may have affected teacher ratings, whereby they may have looked for change in target areas and report stronger changes in behavior than if they were blind to the program goals. Finally, it was originally planned to make comparisons between children who were more and less active in the SPARK for Learning program, as noted by their heart rate intensity. We were interested in examining differences between those who were more engaged and less engaged with the program, but this was not possible, as almost all children participated fully and had heart rates in the moderate-to-vigorous range over the course of both individual sessions and over the year. As such, it was not possible to examine differences in those with lower versus higher heart rates. This issue will hopefully be resolved during the current year's data collection as there will be a larger sample and more range of participating children.

Conclusion

Together, there is a strong argument for the inclusion of school-based social-emotional intervention programs that support all children, including those who may be at risk. In particular, the inclusion of a physical activity program that aims to develop relationships between peers as well as between the teacher and students may provide an ideal opportunity to build resilience in children and youth. The implementation of a physical activity program in a school for children with learning and/or attentional difficulties has provided a chance for initial research into the link between physical and mental well-being and the possible connection to resilient outcomes. The possibility of incorporating these types of programs into all schools may provide a low-cost, grassroots approach to supporting children, given that SPARK for Learning requires little financial startup cost (e.g., current school gym equipment is sufficient), but does require time commitment from classroom

teachers and support from school administrators. As such, bringing in a simple, aerobic-based program, such as SPARK for Learning, into any classroom may provide a number of benefits to children in physical, social, and emotional domains.

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Chapter 19
Resiliency in Pediatric Chronic Illness: Assisting Youth at School and Home

Michelle M. Perfect and Sara S. Frye

This chapter examines chronic illnesses in children and how factors associated with resiliency serve as a buffer against the negative outcomes associated with these conditions. An estimated 15–18 % of children suffer from a chronic illness (Ferro & Boyle, 2013; Woods, Mayes, Bartley, Fedele, & Ryan, 2013). Chronic illness can be defined as a medical condition existing longer than 3 months that interferes with an individual's daily function. It must be managed by hospitalizations, treatment at home, and attendance at multiple physician appointments (Compas, Jaser, Dunn, & Rodriguez, 2012). This definition includes diseases such as diabetes, epilepsy, cancer, juvenile arthritis (JA), and asthma. There have been many changes in the medical field over the past several decades. Through these advances, illnesses that were previously considered to be life threatening are now treatable. Children who would previously not have survived are able to recover from or manage their illnesses. As a consequence, there has been an increase in children living with chronic illnesses (Newacheck & Taylor, 1992). Many of the illnesses have been shown to cause high stress in individuals, especially when they have to monitor their daily care activities regarding their illness (Guo, Whittemore, & He, 2011). Thus, when considering the impact of the chronic illness, it is important to consider the degree of behavioral self-management involved (Fournier, de Ridder, & Bensing, 2002). For instance, conditions such as diabetes and asthma entail significant self-care efforts to prevent serious medical situations that can occur at a moment's notice, such as a spike in blood sugar or an asthmatic attack. It is often the role of the child, depending on age, to act in these situations that entail a high level of responsiveness and responsibility. Other chronic illnesses also necessitate self-care, but to varying degrees. Juvenile arthritis is somewhat controllable by self-care with the proper use of medication, a

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strict diet, and prescribed exercise. However, diseases like epilepsy do not entail much self-care as the symptoms are variable and the onset of seizures can be unpredictable.

Children with chronic illnesses experience a wide variety of challenges associated with their particular medical conditions. The initial diagnosis of a chronic condition is often a stressful and confusing time for children and parents (Compas et al., 2012). Many children with these conditions experience ongoing symptoms during or following treatment. Physical symptoms include pain, fatigue, and seizures. Additionally, there may be many unwanted side effects and stress associated with the medications and treatments that children receive for their respective conditions.

The parents of children with chronic illnesses, or the children themselves, must be prepared to administer medication immediately for diseases such as diabetes or asthma. This requires knowledge of the disease and how to manage the symptoms. In addition to the physical effects of these diseases, children with chronic illnesses also experience unwanted interruptions in their daily lives. For many children this includes missing school, being excluded from activities, and having to undergo frequent medical treatments. These activities can lead to significant stress for children with chronic illness and their caregivers. Another source of stress for students is the transition from the hospital or a prolonged period of time out of school back into the classroom (Shaw & McCabe, 2008). Although the transition itself is often stressful, returning to school includes deciding what information to share with the administration and fellow students. Additionally, if the disease requires treatment during the school day, the teacher and school nurse must be educated on how to provide treatment and handle situations such as the onset of a seizure or asthma attack. Research suggests that many children with chronic illness are also coping with significant psychological stress (Compas et al., 2012). This stress can lead to multiple psychological consequences such as low self-esteem, depression, and anxiety. However, children with such diseases often exhibit notable resiliency against these negative effects. To that end, this chapter will examine how resiliency plays a role in outcomes for children with chronic illnesses. First, we will review the literature on resiliency with regard to the family and school environment. Next, we provide information on chronic illnesses in the pediatric population and highlight two case examples of youth with similar levels of distress, but differing levels of resiliency. Finally, we close by discussing how to promote resiliency in children with chronic illnesses.

Resiliency Research

First we begin with our definition of resiliency. Resiliency is the capacity to recuperate from challenges or trauma to be successful across domains of functioning, such as self-perceptions, interpersonal relationships, and performance at school or work (Yi, Vitaliano, Smith, Yi, & Weinger, 2008). The concept of resiliency involves both the occurrence of stressors and the capacity within the child to respond, to endure, or to develop and master, in spite of the impact of the stressors

(Richmond & Beardslee, 1988). Resiliency may be assessed by individuals' self-perceptions of their own capacity and their interpersonal relationships (Prince-Embury, 2008). The targeted individual characteristics have varied across studies; however, these qualities often include perceived self-mastery, optimism, assertiveness, adaptability, effective emotional control, the ability to relate, trust, and feel supported by others, acceptance of differences in others, and perceived controllability of the situation. With regard to mental health, it is important to consider that although measures of psychopathology often inversely relate to measures of resiliency, the constructs are not necessarily on the same or opposing dimensions. Rather, it is possible to have moderate levels of distress and still evidence resiliency. Thus, a resilient individual is not necessarily someone who is characterized by the absence of distress, but also possesses positive qualities and strengths to be able to function well despite the distress (Masten, Herbers, Cutuli & Lafavor, 2008). Consequently, having resilient characteristics may serve to mitigate the negative outcomes that may have otherwise been associated with depression, anxiety, or disruptive behaviors in children. The research on chronic illness has indicated that resiliency factors can be protective against some of the negative effects associated with these diseases. Although individual or personal resiliency is an important construct, two other areas are particularly relevant for youth with chronic medical conditions: family and school.

People rarely exist in complete isolation. Instead, their experiences are shared with the people around them. When considering the factors that influence resiliency, it is important to explore the familial context in which the individual is embedded (Long & Marsland, 2011). Family resiliency is a growing body of literature that views resilience as a combination of multidimensional factors that promote the ability to adapt and overcome hardships as a functional unit (Walsh, 2003). Families contribute to the buffering elements that protect individuals from negative outcomes, such as those associated with chronic illnesses. It is clear that nearly all chronic illnesses disrupt family functioning due to the emotional, psychological, and financial stresses of caring for and treating a person with a disease. The different ways in which families are impacted by someone in the family having a chronic illness will be discussed later in the chapter. Despite these obstacles, many families do not experience problems within the family and instead adapt and adjust to the demands of the situation and emerge stronger (Walsh, 2003). The goal of a family resiliency model is to recognize and strengthen the processes that occur within interpersonal relationships that allow the family to endure and recover from negative life events. These processes include a sense of understanding that the crisis is manageable (coherence), a positive outlook (optimism), connectedness between family members (social support), ability to express feelings and concerns openly (emotional expression), and openness to change and ability to adapt (flexibility). This viewpoint focuses on seeing the family as an asset in need of repair as opposed to a hindrance contributing to the problem (Walsh, 2003).

The influences of family on well-being point to possible interventions aimed at improving outcomes for children with chronic illness by enhancing family resiliency. Rolland and Walsh (2006) reviewed present use of a family resiliency model in improving outcomes for the families with children facing childhood illnesses.

The review showed that facilitating resilience factors such as coping and the ability to adapt enhanced overall quality of life for the family. Promising results suggest that enhancing family resiliency can be an effective intervention for children with chronic illnesses and highlight the need for research in this area.

Schools are a natural context to promote resiliency as youth spend one-third of their waking hours in the classroom. Students who possess resilient characteristics, such as academic and social competence, high expectations for oneself, and feelings of connectedness, are less likely to drop out of school and demonstrate higher levels of academic achievement (Brooks, 2006). Nonetheless, the literature on resiliency in schools is scarce as many studies emphasize a deficit model of functioning. However, a few reviews and studies support the benefit of emphasizing resiliency to promote school performance. The first consideration is assessment of resiliency within the school context. Prince-Embury (2008) described the methodological and practical challenges associated with conducting such a screening, but noted many benefits of ongoing monitoring of resilient characteristics. In this regard, a school system may wish to administer a measure of resiliency, such as the Resiliency Scales for Children and Adolescents (RSCA), to all children. Data obtained from this screening would identify students who are considered to be vulnerable to stressors or at risk for mental health difficulties. It would also identify strengths in each student that could be highlighted and fostered further. School personnel could use these findings to tailor classroom-wide or individual interventions. With regard to interventions within the school setting, several preliminary studies have yielded positive outcomes (Prince-Embury, 2008). Doll, Zucker, and Brehm (2004) emphasized the importance of establishing resilient classrooms so that all students have the opportunity to reach their full potential and are psychologically healthy. The authors promoted modifying the classroom environment rather than solely targeting individuals. Masten and colleagues, (2008) recommended simple resilience-enhancing strategies for school mental health professionals. Specifically, they suggested that all student-related objectives be written in positive language (i.e., what the student should be doing rather than what the student should be doing less of) and that monitoring of the outcomes should focus on strengths. Classroom-wide efforts should be proactive and preventative in nature rather than reactive and crisis-intervention oriented.

With regard to chronic illness, Wideman-Johnston (2011) reviewed literature focused on building resiliency for educational success for youth with chronic medical conditions. Qualitative findings suggest that effective management of health among youth with chronic health illnesses was characterized by three qualities: a positive self-image, adaptability, and relatedness to others. Consequently, resilience-enhancing strategies may include helping youth to understand the nature of their disease, having open communication with others, and promoting their confidence in their ability to manage their condition and its associated morbidities. A school-wide systemic approach involves school personnel ensuring that youth with chronic illnesses have the same educational opportunities as their otherwise healthy peers (Wideman-Johnston, 2011). Educators should avoid excluding these

youth from traditional classrooms and have plans for the smooth transition back to school following hospitalizations or prolonged absences (Shaw & McCabe, 2008; Wideman-Johnston, 2011). Such plans may include allowing attendance for partial days until the child is fully recovered or provision of home-based instruction (Shaw & McCabe, 2008). Further, school personnel should consider and accommodate for physical limitations, isolation from others, academic challenges associated with the condition or its treatment, and the possibility that the youth with a chronic illness may experience feelings of being different than their peers (Wideman-Johnston, 2011). At the classroom level, teachers can provide a balance of autonomy and support as a way to strengthen the student–teacher relationship, foster acceptance and understanding within the classroom, provide appropriate supports to address unique instructional needs, and welcome them back into the classroom giving these youth an opportunity to make up missed assignments (Downey, 2008; Shaw & McCabe, 2008; Wideman-Johnston, 2011). One example may be identifying a classroom buddy or other peers with whom the child feels comfortable (Wideman-Johnston, 2011). To foster autonomy, a teacher should offer assistance and options, but allow the students to make decisions regarding their limitations or needs. Simply listening to the students' needs can help to support their transition back to the classroom (Shaw & McCabe, 2008). Individual supports or interventions should promote problem solving abilities, instill hope, and help youth understand their own self-worth (Perfect & Jaramillo, 2012; Prince-Embury, 2007; Wideman-Johnston, 2011).

Pediatric Chronic Medical Conditions

As noted previously, each chronic medical condition is unique and varies in its prevalence, etiology, outcomes, and degree of self-management needed to avoid exacerbation of the condition. To some extent, certain conditions are more managed through behaviors of the patient, whereas other conditions are more likely to be less controllable and unpredictable. There are numerous medical conditions in the pediatric population and variable levels of severity within each of those conditions. Nonetheless, we selected epilepsy, juvenile arthritis, asthma, cancer, sickle cell disease, and diabetes given their prevalence in and impact on children (Sansom-Daly, Peate, Wakefield, Bryant, & Cohn, 2012). Under each condition, we present the estimated prevalence, the nature of the illness and its management, family and school outcomes associated with the disorder, research on resiliency or resilient characteristics within the population, and select findings related to interventions targeting youth diagnosed with that condition. Please see Table 19.1 for a summary of research findings related to (1) studies published examining personal strengths/resiliency with outcomes; (2) studies published examining family resilience and outcome; and (3) psychosocial interventions aimed at enhancing coping or resiliency as a way to enhance outcome.

Table 19.1 Summary of individual resiliency characteristics, family resiliency findings, and psychosocial interventions promoting resilient characteristics in youth with chronic medical conditions

Medical condition	Authors	Target	Type of article	Emphasis/outcomes
Epilepsy	Mu (2005)	Families	Examined relations	Fathers with less stigma and stronger family cohesiveness related to better disease outcomes
	Mu (2008)	Families	Qualitative	Resiliency characterized by hope, information gathering, and flexibility
	Mu and Chang (2010)	Families	Intervention	Promoted family resiliency by decreasing role ambiguity
	Conant, Morgan, Muzykewicz, Clark, and Thiele (2008)	Individuals	Intervention	Karate course improved psychosocial outcomes for youth with epilepsy
Juvenile arthritis	Smith and Zautra (2008)	Individuals (adults)	Examined relations	Optimism, finding meaning, and coping related to positive affect and interactions
	Gerhardt et al. (2003)	Families	Questionnaires compared to those without JA	Families of children with JRA showed the ability to adapt to challenges
	Stinson et al. (2010)	Families	Online intervention	Increased disease knowledge within family and improve physical outcomes of youth
Asthma	Koinis Mitchell et al. (2004)	Children	Examined relations	Perceived control and adaptability related to better self-management
	Kim and Yoo (2007)	Individuals	Examined resiliency	Resiliency as a buffer against negative psychological effects of asthma
	Svavarsdottir and Rayens (2005)	Families	Examined relations	Examined family resiliency and characteristics of hardiness
Cancer	Kim and Yoo (2010)	Families	Examined relations	Family functioning and positive social interactions related to higher resiliency
	Smorti (2012)	Individuals	Compared to youth without cancer	Youth in remission have higher optimism (may have unrealistic expectations), but lower ego-resiliency
	Wu et al. (2013)	Individuals	Examined relations	Cognitive coping and problem-orientated coping related to resiliency
	Heiney et al. (1988)	Individuals	Intervention	Group therapy to help coping
	Kato et al. (2008)	Individuals	Intervention	Video game intervention to improve treatment adherence, self-efficacy, and disease knowledge

Sickle cell disease	Ziadni et al. (2011)	Individuals	Examined relations	Interpersonal relations and relations of parents related to better coping to adherence; better coping to adherence related to adjustment; hope not related
	Bediako and Neblett (2011)	Adults	Examined relations	Optimism related to better disease outcomes
	Barbarin (1994)	Individuals and families	Case reviews and focus groups	Resiliency factors of individuals and families that mitigate negative outcomes associated with the disease
Diabetes	Erkolahti and Ilonen (2005)	Families	Examined relations	Stronger family relationships and adaptability in relation to lower risk for school problems
	Perfect and Jaramillo (2012)	Individuals	Examined relations	Self-mastery, optimism, and low emotion reactivity predicted better grades; self-mastery predicted better glucose control; interpersonal relatedness predicted better adherence
	Yi et al. (2008)	Adults	Examined relations	Resiliency protective factor against increases in blood sugars
	Robertson et al. (2012)	Individuals	Review	Resilience and positive emotions relate to better self-management and health outcomes
	Mackey et al. (2011)	Individuals and families	Examined relations	Family cohesion and individual resiliency relate to better disease control
	Hilliard et al. (2013)	Families	Examined relations	The impact of family conflict and parental stress on disease management
	Thorpe et al. (2013)	Individuals	Review of interventions	Coping skills training to increase stress management and self-confidence
	Hillard et al. (2012)	Individuals and families	Review of interventions	Family therapy helps promote cohesion, communication, and problem solving efficacy

Epilepsy

Epilepsy, or seizure disorders, includes a group of disorders that involve recurring seizures caused by unusual brain activity. It affects approximately 1 % of all children and has a higher incidence in lower income families (Russ, Larson, & Halfon, 2012). Seizures are the most common symptom of epilepsy and, when uncontrolled, can cause serious disruptions in the child's life and put the child at risk for injuring himself or herself. There are many types of seizures but the defining characteristic is the presence of involuntary movements that can last seconds to several minutes. The type of seizures, age of onset, and brain activity during the seizures are used to determine what type of epilepsy the child is experiencing. The onset of the seizures generally must be spontaneous in order to be considered a seizure disorder; however, some types have triggers. This means that, for most children, a seizure may occur at any time. These children are at risk for having episodes during class time and interrupting their learning. A child is essentially incapacitated at the time of a seizure which often leaves the teacher responsible for ensuring the safety of the child and others in the room. Preparation for this might include the parents and child discussing the condition with the teacher and suggesting procedures in the event that the child suffers from a seizure. This can be uncomfortable for a child to reveal sensitive medical information with others and might cause the child to feel stigmatized for being different and requiring special accommodations. The most common treatment for epilepsy is medication to control the seizures. Unfortunately, many people with epilepsy do not get relief from seizure even with medication. The uncertainty associated with when the child will experience symptoms and lack of medical relief contribute to the negative psychological affects that children with epilepsy may experience. Outcomes associated with epilepsy are increased risk for attention deficit hyperactivity disorder (ADHD), conduct disorder, autism, and psychological problems such as anxiety and depression. In school, these risks increase the need for special services as epilepsy is highly comorbid with learning disabilities (56 % prevalence) and developmental delay (50 % prevalence) and overall a significantly increased risk for poor academic achievement (Russ et al., 2012). Parents of a child with epilepsy have been shown to experience uncertainty about familiar roles while providing care to the child. There might be uncertainty within the family surrounding the duties of a child in the household, which can lead to an over or underestimate of their abilities. Parents might also question whether the child feels psychologically excluded and, therefore, overcompensate for this perceived deficit and compound the problem. Unclear perceptions about the role of each family member can lead to negative effects for the child and family as a whole (Mu, Kuo, & Chang, 2005). The resiliency of youth with epilepsy is not well studied. However, two studies have emphasized family resiliency. One study found that factors such as family cohesion and fewer negative perceptions of epilepsy helped fathers feel they could respond to the unpredictable nature of their child's illness (Mu, 2005). One qualitative study found that parents exhibited resiliency by maintaining hope for successful medical treatment and minimizing medical

complications, seeking out resources to be informed, and maintaining flexibility so they could adapt to their child's medical needs (Mu, 2008).

Some interventions have been developed to improve psychosocial outcomes for adolescents with epilepsy. One intervention was developed to improve self-concept, social confidence, and quality of life through participation in a karate course. Over the 10 weeks, the children reported an increase in their self-esteem and overall confidence in social situations. Parent reports indicated an increase in health-related quality of life for their children. The results suggest that similar activities might have a positive impact on youth with epilepsy in avoiding some of the negative social–emotional risks associated with the disease (Conant, Morgan, Muzykewicz, Clark, & Thiele, 2008). For families, Mu (2005) recommended that interventions should include psychoeducation about the illness to help families deal with uncertainty, targeting family cohesiveness by involving fathers, and frequent and open communication with families by medical professionals. Mu and Chang (2010) developed and examined a program designed to reduce ambiguity in the roles of families with children being treated for epilepsy. The mothers of children with epilepsy were asked to complete the boundary ambiguity scale, depression scale, and parental needs checklist as well as an initial in-person interview. Using the collected information, the needs of the family were assessed and they were offered one to two in-depth sessions to explore issues surrounding role ambiguity. The parents and child were made aware of the importance of defining roles and how they could improve this within their own family. Additionally, they were given information about epilepsy and how to care for a child with epilepsy. After the sessions, the family was given a parental education handbook and other materials about the disease itself. The results of a posttest 3 months after the intervention showed that the program decreased role ambiguity and, therefore, promoted resiliency in families caring for a child with epilepsy by increasing the child's control over his or her own vulnerability (mastery; Mu & Chang, 2010).

Juvenile Arthritis (JA)

Juvenile arthritis is an umbrella term that encompasses the types of arthritis that affect children and adolescents. Nearly 1 in 250 children under the age of 18 is diagnosed with a form of childhood arthritis, making it one of the most prevalent chronic illnesses in children (Sacks, Helmick, Luo, Ilowite, & Bowyer, 2007). Arthritis is an autoimmune disease generally defined by inflamed joints lasting more than 6 months. The classification of arthritis is largely dependent on the type and number of joints affected. Youth with arthritis typically experience stiffness of the joints that can range from discomfort to severe pain impeding all physical movements. Fatigue is also very commonly associated with arthritis, especially when the joints are inflamed. Other effects of the disease can be vision problems related to inflammation of the optic nerve and the premature end of growth. The symptoms of the disease are controlled largely through pharmaceuticals. Many of these drugs are

very hard on the system as they are designed to stop the body from attacking the joints. Therefore, children on these medications experience a depreciated immune system and must undergo frequent blood tests to ensure proper liver and kidney functioning. Another common treatment for juvenile arthritis is a series of cortisone shots injected directly into the affected joints. These shots can be extremely painful and frightening for young children. However, there is also evidence that restricted diets and exercise targeting muscles surrounding the afflicted joints can reduce symptoms. For children in school, this means limited physical activity, increased absences, tiredness during class time, etc. all of which can lead to negative social–emotional outcomes and poor school performance (Sanzo, 2008).

Families can be affected by the stress and financial impact of the disease (Gerhardt et al., 2003). One study examined family functions and parental distress in families of children with juvenile rheumatoid arthritis (JRA). The results indicated that the families exhibited considerable resilience as defined by the ability to adapt to the difficulties of caring for a child with JRA. In comparison to families without a child with a chronic illness, these families reported similar levels of family functioning, parental distress, and supportiveness indicating that families are able to adapt to the challenges presented by the disease (Gerhardt et al., 2003). A study on adults with arthritis found that increases in positive affect and positive interactions correlated with resiliency when confronted with the stresses of the disease (Smith & Zautra, 2008). In this particular study, the resilience factor comprised measures of optimism, coping, positive reinforcement, and purpose in life. These findings suggest that the factors of resilience can influence how patients cope with psychological effects of the disease. With regard to interventions, Stinson et al. (2010) evaluated a program aimed at improving outcomes for adolescents with juvenile arthritis and their families. The intervention was delivered through internet modules to the adolescent and one parent over 12 weeks that provided information about the disease itself and self-management techniques. The results indicated that the adolescents with arthritis and their parents' knowledge of the disease increased and the youth saw a significant overall decrease in pain intensity by the end of the intervention. Although not specifically examined, the increased knowledge may have led to increased disease care and, therefore, contributed to decreases in pain intensity. Interventions aimed at increasing self-management that include the family have the potential to serve as an effect invention tool to improve outcomes for children with juvenile arthritis.

Asthma

Asthma affects approximately 9 % of children in the United States. It is one of the more prevalent childhood illnesses affecting more than seven million children as of 2010 (Centers for Disease Control and Prevention, 2012b). Asthma is a chronic illness involving the lungs and airways that become inflamed and make breathing difficult. Children with asthma experience difficulty breathing, chest tightness,

coughing or wheezing, etc. An asthma attack can be bought on suddenly during exercise, stress, or allergens, and is frightening and potentially life threatening for the child. Children with asthma are often responsible for managing their disease through the use of an inhaler and by avoiding situations likely to provoke an attack. Managing asthma can be stressful for a young child and also alienating at school. Children with asthma might be excluded from activities, such as outdoor sports, due to their illness. Additionally, the need for regularly scheduled doctor appointments may require children with asthma to miss school frequently. Additionally, during an attack or following one, other students might not have an understanding of what asthma is or why the student is having problems breathing. This discomfort with the illness may result in avoidance or rejection. Such negative peer interactions can lead to feelings of depression in addition to other psychological distress of which children with asthma are at risk (Petteway, Valerio, & Patel, 2011).

Childhood asthma is associated with poor psychological adjustment for both the child and parents. Family functioning can be disrupted by the burden of caring for a child with asthma. Holm (2008) asserted that parents of children, specifically mothers, with asthma are at risk for psychological symptoms related to uncertainty about the disease and the impact on the child. However, the psychological well-being of these parents is impacted by how resilient the family is. Hardiness has been described as a component of or synonymous with resiliency. From a family resiliency perspective, it refers to how the family copes with stressful life outcomes by viewing change as growth rather than burdensome and feeling control over such life changes. Svavarsdottir and Rayens (2005) measured family hardiness using the Family Hardiness Index, which comprised questions about the family's current situation on a four-point Likert scale. Higher scores reflected greater family hardiness. Data supported that in families with asthmatic children, sense of coherence (feeling that life is predictable and manageable), level of depression, and well-being related to the level of family hardiness. This finding suggests that interventions aimed at improving the well-being of the family may increase family resiliency and, therefore, improve outcomes for children with asthma by being better able to adapt to caring for a child with a chronic illness (Svavarsdottir & Rayens 2005).

Asthma also impacts how the child functions in an educational setting. Specifically, children with asthma are at risk for poor school outcomes due to increased absences, side effects from medication, stress, as well as perceptions by the teacher or parents that the child cannot perform due to weaknesses related to the disease (Celano & Geller, 1993). Many of the negative school outcomes that children with asthma are at risk for can be minimized with proper disease management. As mentioned previously, asthma is a highly manageable disease through self-care. To promote positive school outcomes, children can be taught disease management techniques for home and school with the support of family members and supportive teachers. This includes how to properly use an inhaler and the ability to monitor symptoms and take steps to prevent asthmatic attacks.

Koinis Mitchell, Murdock, and McQuaid (2004) examined if the individual characteristics of perceived control and adaptability predicted asthma management behaviors in the context of neighborhood and disease characteristics. Adaptability

and self-management behaviors were measured using the Behavioral Assessment Scale for Children (BASC) and the Asthma Behavioral Assessment Questionnaire (ABAQ), respectively; they were administered at the beginning of the study and at a 1-year follow-up. Adaptability was defined as how quickly and easily the child was able to adapt to new situations. The authors found that higher levels of adaptability enhanced self-management behaviors for children with high levels of neighborhood disadvantage at the 1-year follow-up. Therefore, resiliency characteristics associated with adaptability may operate as protective factors for urban children and help them manage their asthma symptoms within a disadvantaged setting. Another study examining Korean children with asthma found that resiliency associated inversely with levels of depression (Kim & Yoo, 2007). The resiliency of the children was measured using a scale developed by the authors that measured coping and intrapersonal and interpersonal aspects of children with chronic illnesses. The findings indicate that factors associated with resiliency are important for buffering children against the psychological effects of asthma. Additionally, a systematic review reported that several interventions have been developed to decrease asthmatic symptoms through improving interpersonal relationships and family functioning. Family therapy has been shown to improve airway inflammation and decrease wheezing symptoms in children with severe asthma. These results suggest that family resiliency can provide physical relief to children with asthma by addressing emotional aspects and promoting family evolvement in managing the disease (Ritz, Meuret, Trueba, Fritzsche, & von Leupoldt, 2013).

Cancer

Cancer is the overproduction of cells in the body that creates abnormal cells by damaging the DNA. The reproduction of these cells often results in the creation of tumors that grow and spread to other parts of the body, creating more damaged cells. The primary types of cancer encountered in the pediatric population are leukemia (34 %), brain and nervous system tumors (27 %), lymphoma (8 %), bone cancer (osteosarcomas), extracranial tumors (neuroblastoma; 7 %), Wilms tumor (5 %), and cancer of the eye (retinoblastoma; 3 %). Cancer in children has been rising in the last several decades and roughly 11,500 children are projected to be diagnosed this year (American Cancer Society, 2012). Although the rate of cancer in children is lower than other chronic illnesses, the mortality rate is much higher. Cancer is the second leading cause of death in children under the age of 15. Childhood cancers are often different from the kinds of cancer that affect adults in that they are relatively unrelated to lifestyle choices or environmental factors. Most of the DNA damage that leads to cancer in children occurs very early on in a child's life and can even begin prenatally (American Cancer Society, 2012).

Although treatment for different types of cancer varies, the most common treatments, based on severity and type, include chemotherapy, surgery, radiation, and medication. The treatments for cancer are accompanied by severe side effects such

as weight loss, extreme nausea, hair loss, and many others. Depending on the stage of cancer and the frequency of the treatments, hospitalizations may be required which removes the child from the home and school environment for long periods of time. Some cancers, such as bone cancer, may require intensive rehabilitation (Smorti, 2012).

Family functioning is also impacted by the demands of treating childhood cancer. The parents and youth must adapt to intense treatment regimes that may be time-consuming and financially burdensome. In addition to disruptions in daily life, the family must also cope with the unpredictability of the disease which may in turn increases the risk for negative family interactions. Children with cancer might feel that their parents are being overbearing due to an increased presence in the child's life and decision making for the child (Heiney, Ruffin, Ettinger, & Ettinger, 1988). A review of the literature done by Long and Marsland (2011) indicated that families of children undergoing treatment for cancer experience considerable variability in family functioning. Many families report role reorganization, shifting of responsibilities, financial uncertainty, etc. However, the degree to which the family experiences disruption is dependent on a host of factors including the mental health of the parents, marital distress, and family closeness.

Upon release from the hospital, children with cancer may experience a difficult school reentry period. Because the side effects of the cancer and treatment are so taxing on the body, children with cancer often have notable physical characteristics that bring attention to their illness. Other students might be afraid of catching the disease from the child or that the child will die soon. These morbid thoughts create distance between the child and his or her peers. In addition to social and psychological stress associated with childhood cancer, children also experience school problems related to absences, fatigue during school, etc. (Henning & Fritz, 1983).

Kim and Yoo (2010) found that several factors related to resiliency in school age children with cancer. The authors defined resiliency as utilizing personal strengths and abilities to overcome difficulties and adapt to challenging situations. Children who reported higher family functioning, positive friendships, and good teacher relationships showed higher resiliency than their counterparts. These findings suggest that positive relationships with teachers and friends and cohesive and adaptive families serve as important resiliency factors that can protect children from some of the negative psychosocial morbidities associated with cancer. Another study examined predictors of resiliency in adolescents being treated for cancer. Resiliency was assessed using the Haase Adolescent Resilience in Illness Scale which measures how the children think and feel about managing their illness. The study reported positive correlations between resiliency and the coping strategies of cognitive coping and problem-orientated coping in dealing with the worry associated with undergoing cancer treatments (Wu, Sheen, Shu, Chang, & Hsiao, 2013). A study of adolescents diagnosed with bone cancer examined the resilient characteristics of optimism and adaptability (Smorti, 2012). The author found that scores on measures of impulse control and optimism were higher for adolescents who had experienced remission from bone cancer compared to those without cancer. However, compared to those without cancer, those diagnosed with bone cancer had lower ego-resiliency

and were less welcoming of unfamiliar situations. When reviewing the data more carefully, Smorti (2012) noted that since scores on the measure of optimism were so high for the adolescents with cancer, there was the potential for these youth holding unrealistic expectations. These findings support the need for practitioners to evaluate whether what appears to be an optimistic viewpoint is based on facts or a reflection of an unrealistic outlook on the situation. In another qualitative study of self-image among female adolescent cancer survivors, researchers concluded that cancer and its treatment impact self-esteem. Interestingly, following treatment, the participants' views on appearance changed in that it became less important and there was an increase in satisfactions with their own self-image (Wallace, Harcourt, Rumsey, & Foot, 2007). In describing a conceptual model of resiliency among childhood cancer survivors, Wills and Bantum (2012) asserted that resiliency relates to self-control in that good regulation results from social support and poor self-control is related to interpersonal conflict. The authors also reviewed findings relevant to resiliency in cancer survivors. Specifically, the review discussed how optimism, self-control, and social support are related to improvements in quality of life and overall psychological functioning in cancer patients. These resiliency factors work together to reduce the risk of negative outcomes related to cancer.

There are a wide variety of interventions for children with cancer that target improving social, academic, and psychological outcomes. One study investigated the use of group therapy to increase social functioning of children with cancer. Descriptive data suggested that the adolescents were better able to cope with the stress associated with parental overbearingness and peer isolation following group therapy (Heiney et al., 1988). Additionally, several studies have aimed to increase treatment adherence among adolescents with cancer. One study utilized a video game as an intervention. Adolescents with cancer who were randomly assigned to the experimental condition were asked to play a single player video game across several weeks, which included "missions" related to cancer treatments. Participants in the control condition did not play the video game. Participants were asked to defeat cancer cells, deliver antibiotics, and other tasks that represent real life needs for youth with cancer. At the end of the intervention, the adolescents who played the video game showed better treatment adherence as well as increased knowledge about the treatment and self-efficacy. This increased knowledge about the treatment and self-efficacy served as mediators for improvements in patient's adherence (Kato, Cole, Bradlyn, & Pollock, 2008). We highlighted just a few of the interventions that have been conducted with children being treated for cancer. Using technology that is appealing to youth such as video games may be both well received and effective.

Sickle Cell Disease

Sickle cell anemia is a blood disorder characterized by abnormally shaped red blood cells that can cause various complications. The disease is hereditary and is passed from parents to offspring. It is more common among African Americans and people

originating from areas where malaria is common. The Centers for Disease Control and Prevention report that sickle cell disease occurs in 1 of every 500 African American births. People with sickle cell often have anemia, or a shortage of red blood cells, and may appear pale or jaundiced. The most common side effect of the disease is chronic pain associated with blood cells becoming stuck in various parts of the body which deprives that area of oxygen. The onset and duration of these episodes are relatively unpredictable. Pain management is an important component to treating this disease as episodes can last anywhere from a few hours to several days and require hospitalization. Blockages caused by the rigid blood cells can also compromise organs and make the body more vulnerable. Therefore, most children with sickle cell are prescribed a regime of antibiotics to fight off infections. This disease can also slow development that leads to slower growth and delayed puberty for affected youth (Centers for Disease Control and Prevention, 2011).

The physical pain associated with this disease can be accompanied by psychological distress. The unpredictability of symptoms may cause disruptions in the daily life or the child's ability to function at and attend school. Managing symptoms of the disease also puts strain on family functioning by interfering with the parent's ability to attend work as well as the emotional stress of caring for an ill child. However, not all children with sickle cell experience negative social and psychological outcomes associated with the disease. Studies have found that acceptance, self-encouragement, and hope are related to better adjustment and lower pain intensity in youth and adults with sickle cell disease (Bediako & Neblett, 2011; Ziadni, Patterson, Pulgarón, Robinson, & Barakat, 2011). Using case reviews and focus groups, Barbarin (1994) concluded that personal resiliency factors such as optimism and hope as well as positive family functioning (parental involvement, supportive relationships, etc.) played a crucial role in mitigating the negative outcomes associated with sickle cell disease. Additionally, the author article discussed how illness severity does not necessarily determine the extent to which a child will suffer from negative psychological outcomes or the degree to which the disease will serve as an interruption. This factor was mediated by the child and family's view of the illness. Therefore, the better the family copes with the disease as a whole, the better the child's adjustment will be across all domains (Barbarin, 1994).

Diabetes

Diabetes is a group of metabolic disorders that affects blood sugars (glucose) in the body. A hormone in the body, insulin, serves to regulate glucose. Two primary types of diabetes, type 1 diabetes mellitus (T1DM) and type 2 diabetes mellitus (T2DM), are characterized by the body's inability or ineffectiveness to produce insulin, respectively. Over 13,000 youth are newly diagnosed with T1DM annually in the United States, with approximately 1 in 500 children and adolescents having the disorder (Centers for Disease Control and Prevention, 2012a; Wodrich, Hasan, & Parent, 2011). Physicians monitor diabetic health through a blood test that yields a value for

hemoglobin A1c (HbA1c), which is an estimate of glucose levels over a 3-month time period (Hilliard, Wu, Rausch, Dolan, & Hood, 2013; Yi-Frazier, Hilliard, Cochrane, & Hood, 2012). Excessively high amounts of blood sugars (hyperglycemia) for long durations may lead to long-term complications with the kidneys, vision, or nerves, whereas extremely low blood sugars (hypoglycemia) may result in seizures, coma, or even death. Management of T1DM involves administration of exogenous insulin via a pump or injections, adjustment of those doses based on diet or physical activity, and frequent check of blood sugars to determine a patient's degree of glycemic control. These multiple daily blood checks require pricking the finger to extract a small amount of blood, which can be very burdensome and uncomfortable to patients (Kucera & Sullivan, 2011; Perfect & Jaramillo, 2012).

Compliance with diabetes self-care significantly declines in adolescence. The diagnosis and management of diabetes place a high level of stress on individuals and families (Rearick, Sullivan-Bolyai, Bova, & Knafl, 2011). Research has supported that high levels of parental–child conflict and parenting stress interfere with the execution of behaviors necessary to manage diabetes (Hilliard et al., 2013; Monaghan, Horn, Alvarez, Cogen, & Streisand, 2012; Streisand, Swift, Wickmark, Chen, & Holmes, 2005; Yi-Frazier et al., 2012). Conversely, higher levels of parental involvement and monitoring and family cohesion are associated with better management and control (Grabill et al., 2010; Hilliard et al., 2013; Mackey et al., 2011).

With regard to school functioning, studies have found that youth with T1DM often struggle in the areas of writing and math (Naguib, Kulinskaya, Lomax, & Garralda, 2009), establishing and maintaining peer relationships, performance in school, high school completion, and post-secondary educational pursuits (Kucera & Sullivan, 2011; Wodrich et al., 2011). However, one study found that students with diabetes who reported the ability to adapt to current situations and had stronger family relations were less likely to evidence lower school performance (Erkolahti & Ilonen, 2005). Perfect and Jaramillo (2012) found that self-mastery and optimism predicted higher parental-reported school grades. Given the amount of self-care activities involved, managing diabetes is a family process. Caregivers often have to provide frequent reminders to their children to take their medication or check their sugars. They may also experience sleep disruption due to checking levels in the middle of the night (Monaghan, Hilliard, Cogen, & Streisand, 2009).

A few studies have examined resiliency among adults with diabetes. Yi et al. (2008) found that resilient adults were less likely to have increases in HbA1c relative to adults characterized by low levels of resiliency. In our research, we found that to achieve better glucose control, adolescents need to feel competent in their problem solving skills in general (Perfect & Jaramillo, 2012). In one review, authors only identified 22 studies that focused on resilience, well-being, or positive emotions. The authors found that all three factors were associated with self-management of diabetes and diabetic health (Robertson, Stanley, Cully, & Naik, 2012). Mackey et al. (2011) examined the interrelations between positive attributes in young adolescents with T1DM. Findings supported that both individual qualities and family cohesion predicted better diabetes management, which, in turn, related to better glucose control. Thus, resiliency within the individual as well as families may serve to buffer adolescents from lapsing in their diabetes management.

Very few interventions for youth with T1DM have focused on enhancing resiliency. Youth with effective coping skills, such as actively engaging in tasks to manage a disease, are able to adjust to their chronic illness and feel more competent (Jaser & White, 2010; Lee, Kim, & Choi, 2013). Some researchers have focused on coping skills training to increase patients' abilities to manage stressful situations and gain greater self-confidence (Thorpe et al., 2013). One review examined interventions that promoted "healthy coping," which the authors defined as emphasizing "positive attitudes toward diabetes and its treatment, positive relationships with others, and high perceived quality of life" (Thorpe et al., 2013, p. 34). Based on their review, Robertson et al. (2012) concluded that interventions should target these areas rather than taking a deficit approach. Family therapy interventions for youth with T1DM have also yielded positive effects, with benefits being shown in improving family resiliency factors such as cohesion, communication, and efficacy in solving problems (Hillard, Harris, & Weissberg-Benchell, 2012; Thorpe et al., 2013).

Case Examples

In this next section, we highlight two case examples to underscore the potential protective factor of resiliency for youth with T1DM. The data were collected as part of a study aimed at integrating medical, mental health, and school-based services for youth with diabetes. Recruitment occurred in a diabetes clinic where research team members described the study to families who provided permission to be approached by the team members. There were a minimum of two face-to-face visits, followed by phone feedback to families. The primary measures were administered at the initial screening visit which lasted no more than 20 min. This included the Diabetes Quality of Life-Youth (DQOL-Y) and the Brief Symptoms Inventory (BSI). Parents completed the Pediatric Symptoms Checklist (PSC) about their child. At the assessment visit, which occurred regardless of screening results and lasted approximately 90 min, youth completed the Beck Youth Inventory-2nd Edition (BY-II), RSCA, and select modules from the National Institutes of Mental Health-Diagnostic Interview Schedule for Children (NIMH-DISC-IV-TR). The criteria for referral included the following: (1) cutoff raw score on the PSC was 28; (2) a *T*-score $\geq$ 60 on the Global Severity Index of the BSI, *T*-score $\geq$ 60 on more than one subscale, or a *T*-score $\geq$ 70 in any one domain; (3) a *T*-score $\geq$ 60 on any one of the Depression, Anxiety, Disruptive Behavior, and Anger BY-II scales, and a *positive* diagnosis on the NIMH-DISC-IV-TR (whether the adolescents reported enough symptoms to warrant receiving a particular disorder based on the DSM-IV-TR). The feedback included a recommendation to participate in a third phase that involved a referral to a mental health professional and monitoring by our team for up to 3 months. Although a positive diagnosis was used for the NIMH-DISC-IV-TR to make a referral, subthreshold symptoms or symptoms that are not endorsed for a long enough duration are identified as an *intermediate* diagnosis. Further, although the DQOL-Y was not used for a referral, we considered it in our feedback and recommendations.

To summarize our overall findings from the study (Perfect & Jaramillo, 2012; Perfect, Levine-Donnerstein, Swartz, Wheeler, & Amaya, 2011), we first pre-tested variables to determine if they related to the outcome. Multiple regression analyses were conducted to predict self-reported GPA, parental-reported school problems, blood glucose monitoring, and HbA1c. When measures of psychopathology (Global Severity Index of the BSI and BY-II subscales) were entered into the same model as the RSCA scales of Self-Mastery and Emotional Reactivity to predict grades, they no longer contributed their own variation to the model. Self-mastery predicted all three of our targeted outcomes: self-reported grades, parent-reported school-related problems, and HbA1c. A complex picture emerged. Different aspects of resiliency related to the different outcomes. Children who perceived better interpersonal relationships characterized by trust and support were more likely to monitor their glucose levels. These interpersonal qualities did not significantly correlate with HbA1c. However, sense of relatedness related to blood glucose monitoring, which, in turn, related to HbA1c. Factors that associated with HbA1c were self-mastery and an optimistic outlook as well as low emotional reactivity including reduced sensitivity and improved recovery time from stressful experiences related directly to HbA1c (please see Perfect & Jaramillo, 2012 for more data and information regarding these relations). Although more research is needed to expand on the interrelations among the different dimensions of resiliency and outcomes such as adherence to treatment and optimal glucose control, examining specific cases provides exemplars for a strength-based approach to assessment and linking assessment with intervention.

Case example #1. One of our participants, "Sal," came into the diabetes clinic with his mother. He was 13 years 4 months old and had T1DM for 2 years. After agreeing to participate in the study and completing the assent/consent process, Sal completed the BSI, the DQOL-Y, and questions regarding his perception of the screening process. His mother filled out the PSC and questions about her perceptions of the screening process. Scores on the BSI were within the Average range. A score of 29 on the PSC was above the clinical cutoff suggesting his mother had significant concerns regarding his psychological adjustment and behaviors. On the DQOL-Y, Sal's scores suggested moderate-to-high life satisfaction, low diabetes-related worries, and moderate-low disease burden. At the assessment visit, Sal completed the BY-II, RSCA, and the NIMH-DISC-IV-TR. Although the BY-II and NIMH-DISC-IV-TR did not meet the clinical cutoffs, Sal's responses to the NIMH-DISC-IV-TR did reveal a positive diagnosis for ADHD. With regard to resiliency, the *T*-score on the RSCA Resource Index was a 64, with his score on the Interpersonal Relatedness scale in the Above Average range. Based on subscale scores in the Above Average to Superior range, he self-reported a positive outlook on the future, an ability to adapt to different situations, trust in others, feelings of being supported by others, comfort in his social relationships, and a high tolerance for differences in others. With regard to outcomes, Sal reported that his grades consisted of mostly Bs and the most recent HbA1c value was 8.5 indicating he did fairly well in school, but his glucose levels were not well controlled, which the American Diabetes Association defines as a HbA1c < 7.5 % for this age group. Although above the recommended

target (Silverstein et al., 2005), his levels were still below the mean of the sample (9.56 %). His medical record also showed that he checked his blood sugars an average of 2.9 times per day.

Case example #2. "Peter," a 13-year-10-month-old male, agreed to participate in the study while waiting for his appointment in the diabetes clinic. He was diagnosed with diabetes when he was 11½ years old. The score on the BY-II Anger scale was 63, suggesting he harbored considerable anger. His mother also reported that he experienced emotional and behavioral problems as evidenced by a score of 29 on the PSC. On the DQOL-Y Peter's scores suggest moderate life satisfaction, low levels of diabetes-related worries, and moderate-high disease burden. In his case, he endorsed items on the DQOL-Y Disease Burden subscale such as missing school because of diabetes, having to explain diabetes, eating something he should not because he does not want to tell someone about diabetes, and diabetes preventing his participation in some activities. Assessment results indicated an intermediate diagnosis of Generalized Anxiety Disorder, Major Depressive Disorder, Mania, and Oppositional Defiant Disorder on the NIMH-DISC-IV-TR. Thus, he endorsed subthreshold mental health symptoms in a number of areas. *T*-scores on the Resiliency Resource and Vulnerability Indexes of the RSCA were 40 and 62, respectively. Such a profile suggests that Peter perceived himself as lower in resiliency defined as protective resources, and a large discrepancy between his emotional reactivity and resources with which to cope effectively when encountering stressful situations. Specifically, he reported lower-than-average self-mastery and higher-than-average emotional reactivity. A further examination of the subscales showed a very negative outlook for the future (i.e., Optimism subscale scaled score = 4), that his trust in others was not as developed as his same age peers, that he was easily triggered by emotional situations, and he had difficulty managing when emotionally aroused. In contrast to Sal, Peter's grades consisted of some Cs and some Ds and the medical record showed that his most recent HbA1c value was 10.8 %, indicating he struggled with both his performance in school and his diabetic health. However, downloaded meter data showed that he did test his blood sugars an average of 4.3 times per day.

As was the case with the majority of the sample (less than 10 % had HbA1c < 7.5 %), both of these two male adolescents were in suboptimal control. Despite some levels of distress, Sal appeared to be doing well in school and was closer to achieving optimal glycemic control than Peter. Since research has shown that adherence to diabetes management, often reflected in frequent blood glucose monitoring, improves blood sugars (as reflected by meeting the target HbA1c), intervention would want to start with increasing Sal's blood glucose checks. Since our overall findings suggested that the RSCA Relatedness scale positively related to blood glucose monitoring, recommendations would be to capitalize on Sal's sense of trust, support, and comfort in his relationships to promote better adherence. A school-specific intervention might include building relationships at school with the school nurse or teachers. They should encourage Sal to engage in more frequent testing while trying to minimize missing important instruction. Further, a family approach to diabetes management also has a high likelihood of better diabetes management and control. Thus, intervention should emphasize promoting collaboration and open

communication among Sal's family members (Hillard et al., 2012; Yi-Frazier et al., 2012), particularly since his mother had some concerns about his behaviors.

Resilience enhancement for Peter would involve assisting him to establish positive, yet realistic, expectations by helping him to establish reasonable goals (Fournier et al., 2002; Perfect & Jaramillo, 2012). He could be encouraged to produce positive self-statements rather than relying on praise by others. An intervention could include an out-of-session assignment, such as having him maintain a journal in which he records situations that he felt proud as well as share these statements with school professionals (Perfect & Jaramillo, 2012; Prince-Embury, 2007). In school, he would benefit from case management services to ensure that both his educational and his health needs are met (Engelke, Guttu, Warren, & Swanson, 2008).

Summary and Conclusions

This chapter reviewed research related to personal and family resiliency in the face of chronic illness. The etiology and outcomes vary according to the particular medical condition. Nonetheless, the commonality for each of them is the impact of chronic illness on psychological, family, and school functioning. We underscored that personal resiliency must be considered in the context of family and school. As part of our review, we highlighted some of the most prevalent chronic medical conditions experienced in the pediatric population. In many cases, there were only single studies and in no case is there an evidence-based or empirically supported treatment focused on enhancing resiliency in youth with any chronic medical conditions. Data from our study underscore the importance of assessing the multidimensional components of resiliency. The contrasting case studies further elucidate the importance of examining strengths as part of the evaluation process for youth with chronic illnesses. In this chapter, we were able to identify some interventions that target individuals and families facing different health conditions. We applied findings from the literature when suggesting strategies to enhance resiliency in the two adolescents with T1DM from our case examples. However, more empirical data are needed to add to the evidence base for resilience-enhancing interventions to improve outcomes for children with chronic illness.

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Chapter 20
Resilience-Building Interventions with Children, Adolescents, and Their Families

Robert Allan and Michael Ungar

When treating children and adolescents who face significant challenges we often focus too narrowly on individual problems—like delinquency or conflict with caregivers—and miss the broader sources of healing and resilience in young people's lives. In this chapter, we will discuss the theoretical roots of an ecological clinical practice that builds resilience and the microskills clinicians use during therapy. Specifically, this evidence-informed approach to clinical work increases children's access to factors associated with resilience, such as positive relationships with caregivers and peers, a sense of personal self-control, agency and power, experiences of social justice and fairness, belonging and purpose, spirituality, and cultural rootedness (Ungar, 2010, 2012). Interventions reflect a therapeutic contract to achieve culturally and contextually meaningful goals to ensure that a client's success during treatment is transferred back into their "real-life" social ecologies. In this way, a resilience promoting practice creates the facilitative social ecologies that nurture and sustain well-being when individuals and families are coping with conditions of significant adversity (Abramson, Park, Stehling-Ariza, & Redlener, 2010; Bottrell, 2007). It is an approach that helps individuals on their own and in groups find ways to navigate to the resources that sustain them and negotiate for mental health resources to be provided in ways that are meaningful (Ungar, 2011).

To illustrate the application of resilience theory to resilience-informed practice, this chapter presents a case study of a 16-year-old male born female who sought help to transition genders to illustrate the approach. While individual work focused on James' gender dysphoria, interventions were also modeled on a resilience-focused approach to counseling that draws on children's formal and informal supports as potential sources of resilience and positive development (Ungar, 2005; Walsh, 2006). The approach is, however, not limited to working with gender dysphoria and, as has

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been illustrated in other case studies (Ungar, 2010), can be used with children, youth and their families across cultures and contexts.

A Case of Gender Dysphoria and the Social Ecologies That Support Resilience

Gender dysphoria refers to the degree of suffering associated with the incongruence experienced by individuals between their body/social identity and their gender identity. The Diagnostic and Statistical Manual V defines gender dysphoria in adolescents and adults as "a marked incongruence between one's experienced/expressed gender and assigned gender, of at least 6 months duration" (American Psychiatric Association, 2013, p. 216) that is manifested in two of six ways and is associated with significant distress or impairment. Getting a diagnosis of gender dysphoria is often a critical step to obtaining a range of services such as hormone replacement therapy. While the standards of care for transsexual, transgender, and gender nonconforming people have moved to an informed consent model (World Professional Association for Transgender Health [WPATH], 2011), the application of these standards is not universal and youth can sometimes be exposed to significant barriers when accessing culturally competent care. We will discuss these barriers and how an approach to counseling that nurtures resilience can address each by reviewing a case involving a 16-year-old natal female, Julie, who identifies as male and has since changed his name to James. James presented with gender dysphoria and sought assistance from the first author to transition. The therapy lasted 9 months. What follows is a brief description of an approach to address broader sources of healing and resilience that a counselor needs to consider when working with children, youth and their families where there are complex psychological and social challenges.

Resilience in Context

One way to understand these interactions between a child and broader systems is to conceptualize them in relationship to the protective factors that predict resilience. We often hear of resilience as an individual's ability to cope with stress and adversity or the capacity to "bounce-back" to a previous state of normal functioning (Masten, 2009). This view of resilience reflects a cybernetic view of systems (e.g., Bateson, 1973, 1979) that may not account for the experiences of diverse populations of youth, including those that are transgendered. A conservative view of systems suggests that families (or larger systems) return to a state of homeostasis—return to a previous level of functioning—or in some cases experience growth. Both individually and systemically, these processes are seen as predictable and measurable and specific interventions are proposed based on the assumption that people's social ecologies can be fixed in ways that make people cope better. This interpretation of

resilience relies on individuals to exercise personal agency to access opportunities in their environments and focuses most of the attention clinically on efforts to increase psychological well-being. Unfortunately, such an approach is unlikely to account for the experiences of children who are transgendered as even when they are motivated to address the barriers they experience to transitioning, their environments tend to lack opportunities to help them cope. The child's resilience is, therefore, more a function of the how well the environment facilitates access to supportive resources than the child's cognitions, personality, or motivation (Abramson et al., 2010; Ungar, 2011; Ungar, Ghazinour, & Richter, 2013).

A resilience-focused clinical approach builds on research that has shown that resilience among the most marginalized youth is better understood as follows:

> In the context of exposure to significant adversity, whether psychological, environmental, or both, resilience is both the capacity of individuals to navigate their way to health-sustaining resources, including opportunities to experience feelings of well-being, and a condition of the individual's family, community and culture to provide these health resources and experiences in culturally meaningful ways. (Ungar, 2008, p. 225)

This definition, based on work by Ungar and his colleagues with more than 1,500 youth in 11 countries, suggests that resilience is dependent upon the family's capacity to provide the resources necessary to optimize development for all of its members (Ungar, Liebenberg, Landry, & Ikeda, 2012; Walsh, 2006, 2007). Resilience building with youth and their families not only requires a more contextualized understanding of resilience but also the facilitation of access to a set of protective factors and processes that provide much needed resources to populations exposed to significant adversity.

In the absence of these supports, research has shown that gender non-conformity in childhood is associated with increased risk of abuse and probable Post-Traumatic Stress Disorder (PTSD—Roberts et al., 2012). In one U.S.-based survey of 6,450 transgender participants, those who expressed a transgender identity or gender non-conformity while in grades K-12, reported high rates of harassment (78 %), physical assault (35 %) and sexual violence (12 %). Harassment was so severe that it led almost one-sixth (15 %) to leave a school in a K-12 setting or in higher education (Grant et al., 2011). Another nationwide survey of bias-motivated violence against lesbian, gay, bisexual and transgender (LGBT) people from 1985 to 1998 found that incidents targeting transgender people accounted for 20 % of all murders and about 40 % of all police-initiated violence (National Coalition of Anti-Violence Programs, 1999). In a more recent survey of 433 transgender people age 16 and older in Ontario, Canada, 98 % reported at least one experience of transphobia (Marcellin, Scheim, Bauer, & Redman, 2013). As these statistics show, the social environments for individuals and their families dealing with gender dysphoria are littered with complicated mental health concerns in the midst of violent and abusive social ecologies.

Given this unstable and dangerous context, it is seldom practical (nor ethical) to suggest that individuals and families dealing with gender dysphoria can choose to be resilient in the face of adversity if they simply change their ways of thinking, feeling or behaving. As illustrated in other case studies and well-supported by the research on resilience (Cicchetti, 2013; Panter-Brick & Eggerman, 2012), it is an unrealistic

expectation that individuals will eventually bounce back when the environments they bounce back into are more likely to be abusive and violent rather than receptive and supportive. When working with children, youth and their families faced with challenging contexts such as gender variant children and youth, we need a model of practice that can meaningfully incorporate these realities into treatment plans to build children's resilience in ways that are contextually sensitive. Such a model of practice not only needs to include an informed consent approach to working individually with youth seeking assistance with hormone replacement therapy, puberty-delaying hormone treatment, and making sense of their gender variance, but also one that understands the range of challenges youth and their families may face in their communities, schools, peer groups, workplaces, churches, sport teams, extended family and friends, and other social ecologies that contribute to well-being.

Case Example Background

James is a straight A high school student who had previously "come out" to his parents as lesbian. Initially, his coming out as lesbian to his parents and friends alleviated symptoms of anxiety and depression; however, he continued to struggle with anxiety and depression and began to explore his gender identity. James lives with his mother, step-father, and older sister. He works part-time and reports that he has a group of friends that he feels comfortable talking with about issues of sexuality and gender identity. He is involved with the gay-straight alliance at school, has been dating the same woman for a year, and is very concerned about preparing himself for university and moving away from the small community where he lives.

Children and youth like James who are gender non-conforming are exposed to a variety of stressors including peer rejection, harassment, and physical assault (Alanko et al., 2009; Landolt, Bartholomew, Saffrey, Oram, & Perlman, 2004; Lev, 2004; Plèoderl & Fartacek, 2009; Smith & Leaper, 2006) and poorer relationships with parents (Alanko et al., 2009; Landolt et al., 2004; Lev, 2004). These ecological and social stressors can lead to a variety of mental health problems later in life including depression, anxiety, distress, a lower sense of well-being in adolescence, and suicidality (Alanko et al., 2009; Landolt et al., 2004; Plèoderl & Fartacek, 2009; Rieger & Savin-Williams, 2012; Skidmore, Linsenmeier, & Bailey, 2006; Strong, Singh, & Randall, 2000). Gender non-conformity in children under 11 years of age has been identified as an "indicator for physical, sexual, and psychological abuse in childhood and lifetime probable post-traumatic stress disorder in youth" (Roberts, Rosario, Corliss, Koenen, & Austin, 2012, p. 410).

While the WPATH guidelines provide a framework for assessment for hormone replacement therapy and surgical re-assignment, ethical practice requires a framework for macro-level considerations when working with transgender individuals and their families (American Counseling Association, 2010). Social ecological factors are central to many approaches to working with youth and their families

but are particularly important for transgender people who "have been historically marginalized and pathologized by diagnostic and assessment systems" (p. 138). In this context of broad-based discrimination, individual treatment will necessarily be complicated by the interactions between the child and his or her family, school and community.

Sources of Healing

The ecological practice model described here is an intentional method of intervention that helps children and families with complex needs, change problem behaviors and sustain those changes by increasing their capacity to navigate and negotiate for resources meaningful to them. Changing this capacity to navigate and negotiate means changing the way systems interact with families and with other systems to make it more likely that people find meaningful substitutes for problem behaviors (Bronfenbrenner, 1979; Moffitt, Caspi, Rutter, & Silva, 2001; Rutter, 1987; Sroufe, Egeland, Carlson, & Collins, 2005; Ungar, 2004, 2011; Werner & Smith, 2001).

The techniques that a resilience-focused therapist uses builds on previous research and clinical work that has explored the "family-larger system relationship" (Imber-Black, 1988, p. 3) and the multidimensional relationships between various caregivers, organizations/bureaucracies, and families themselves (e.g., Annunziata, Hogue, Faw, & Liddle, 2006; Imber-Black, 1988; Madsen, 1999, 2009; Minuchin, Colapinto, & Minuchin, 2007; Ungar, in press). The need to attend to the individual child's interactions with his or her family and other larger systems is especially important in contexts where the child's caregivers and informal supports are ambivalent or antagonistic toward the child. Even when caregivers themselves are supportive, families dealing with gender dysphoria of a child may be exposed to a range of services, stigma, and a multitude of questions that can leave them feeling coerced, patronized, or simply ignored (Imber-Black, 1988; Lev, 2004). While the focus of treatment may remain the child, a child's dependence on his or her caregivers makes family involvement particularly important to good treatment outcomes.

Istar-Lev, a leader in the field of families dealing with family members who are gay, lesbian, bisexual, or transgendered, writes of transgendered people being treated as people without families or being given a choice to either transition or remain part of their families (Lev, 2004). There is little research or clinical writing about how to work with families (or other larger systems such as schools or child welfare services) dealing with gender dysphoria or gender reassignment though there is a growing understanding of how to assess and work with people to independently explore their gender identity. As with most problems that are perceived as psychologically, exploring the impact of the problem (e.g., gender dysphoria) in the context of family and, just as importantly, people's broader social ecologies of peer and community networks, is a critical aspect of the clinical work (Ryan, Russell, Huebner, Diaz, & Sanchez, 2010).

Protective Factors

Protective processes make the factors associated with resilience available and accessible (Rutter, 1987; Ungar et al., 2013). Because the factors associated with resilience are cumulative (access to one potentiates access to others), the more protective factors an individual child and his or her family have, the greater their capacity to engage in actions to withstand stress (Benson, 2003). Depending on a family's exposure to challenges and adversity, different processes may be more or less helpful (exert a differential impact on outcomes), thus allowing for complexity in a counselor's response to the needs of vulnerable clients.

Any counselor using a resilience-informed model of practice can integrate other (often more individually focused) clinical strategies he or she has developed over the years as long as the clinical work is done in ways that are congruent with the goals of a contextualized practice. For example, clinicians trained to assess for hormone replacement therapy and diagnose gender dysphoria may continue to integrate these vital skills when working with youth exploring their gender identity, relationships, and the not-so-subtle messages about their gender that are culturally embedded. A resilience-informed practice reminds counselors, however, to pay attention to intervention goals that are decentered from the client (meaning the focus is just as much on changing risk exposure and the threats posed by the client's environment as changing clients themselves), complex in their understanding of problems and solutions, reflect atypical solutions (like social withdrawal) to problems experienced in challenging contexts, and are culturally and contextually sensitive, avoiding the counselor's bias for specific solutions.

Seven Resilience Factors

With regard to clinical and community interventions, a focus on process and context is critical as it is easier to change the environment around an individual in ways that open opportunities than it is to fortify an individual to make him or her strong enough to cope in an environment that fails to provide adequately for the individual's needs. In ecological studies of resilience, there are at least seven factors that are reported as contextually important (Ungar et al., 2007). What follows is a description of these seven factors and how they were explored in the clinical work with James. The illustration of these factors with a case that included gender dysphoria does not limit the model to children, youth, and their families dealing with gender dysphoria. These seven resilience factors can be seen in context specific ways with other youth as well.

The first factor is *access to material resources* that includes availability of financial and educational resources, medical services, employment opportunities, as well as food, clothing, and shelter. Returning to the case example, we see that James' resilience was in part attributable to his living in a safe home with access to his basic

needs like food and clothing (though he did find it difficult to access male clothing). His workplace and school, however, were not as safe once he began to dress and appear more male. Working with a resilience focus, James' therapist connected with his client's school and workplace to address issues as they arose. For example, James had planned to spend his last year in high school as a male and this decision raised a number of concerns about safety such as bullying and ensuring access to a male or gender neutral washroom. Specific strategies included working with James and his guidance counselor to ensure there was a support person on site. Fortunately, James had been on the gay-straight alliance with the guidance counselor he chose and the counselor, when approached, was keen to offer his support though he made a point of mentioning that he had little experience with gender variance. He did, however, understand how to navigate the education system. In return for his help navigating the school board's bureaucracy and providing emotional support to James at school, James' therapist provided the guidance counselor and his colleagues with opportunities to explore a range of transgender issues in their workplace.

The second resilience factor is *relationships with significant others* such as peers, mentors, and family members in both one's home and community. A study of 84 youth who had come out to their parents and begun to socially transition gender shows that transgender youth who indicated their parents were strongly supportive of their gender identity and expression were significantly more likely (72 %) to report being satisfied with their lives than those with parents who were not strongly supportive (Travers et al., 2012). Furthermore, 70 % of those adolescents with parents strongly supportive of their gender identity and expression reported positive mental health compared to 15 % of those whose parents were not strongly supportive.

While most often the focus of intervention is a young person's significant attachments with immediate family members, the meaningful relationships that support resilience can also come from outside a child's immediate family. In James' case, clinical work began by engaging James' mother and step-father, both of whom James wanted to have accept him as a male. While beginning to understand gender dysphoria, his mother continued to harbor some concerns. For example, she was reluctant to support his going out in public appearing male, believing it would be safer for him to minimize the visibility of his transition. James experienced his mother's worry as a lack of support and a misunderstanding of his gender dysphoria. As Lev (2004) points out, transitioning is easier when families are supportive. When they are not, a child's peers and community supports will be much more important to the child's successful coping.

A third factor that contributes to building resilience is *identity*, the personal and collective sense of one that fuels feelings of satisfaction and/or pride, a sense of purpose to one's life, self-appraisal of strengths and weaknesses, and spiritual and religious identification (Bottrell, 2007; Lalonde, 2005). Resolving gender dysphoria is critical to identity development, though it remains only one dimension of an individual's sense of who he or she is. As Bruessow (2011) notes, the WPATH guidelines now recommend psychotherapy as an appropriate referral for support in helping patients through the negative effects of stigma, identifying a gender expression that is comfortable, and facilitating gender role changes while "coming out," all

aspects of identity formation while transitioning. In James' case, his therapist was given consent to speak with both James' guidance counselor and a therapist he had been seeing for anxiety. Both were briefed on the range of possible work ahead with developing a gender identity that fit for James and about how he might feel (e.g., satisfied, proud, stigmatized). The transition process is evidently complicated, requiring careful exploration of a range of possibilities including the opportunity to identify one's self outside of a gender binary of male/female.

A fourth factor contributing to resilience is *experiences of power and control*. This includes experiences of being able to care for oneself and others, personal and political efficacy, the ability to effect change in one's social and physical environment in order to access resources, and political power. Aspects of power and control were evident in the assessment process with James, with the emphasis being on informed consent. An informed consent process recognizes people's ability to effect change in their lives, elaborates a sense of personal efficacy, and positions the client in a central role when making decisions about which resources to access and when. Despite the shift to an informed consent assessment process, medical and mental health systems are not bound by the WPATH guidelines and may retain systems in place that pose barriers to youth seeking appropriate services. With James, the process was assisted by a referral to a psychiatrist who could confirm the diagnosis and an endocrinologist who was able to treat him when he was ready to begin hormone replacement therapy. Recognizing the significance of power and control as a factor that contributed to James' health and well-being, and ensuring he had access to trans-informed services that would facilitate his continued exploration, were both important steps in a sequence of interventions that helped James develop a sense of personal efficacy.

A fifth factor that contributes to building resilience is *cultural adherence*. This may be adherence to one's local and/or global cultural practices, and assertion of one's values and beliefs that have been transmitted across generations or between family and community contexts. In the case of James, cultural considerations included his family and community's values, religious and cultural assumptions concerning gender, and even the values and beliefs of his care providers. Conflicting values influence access to care and the support young people receive when they transition. One might also consider culture an attribute of the psychological and social space where James connects online and in person with other transgendered youth and adults. Association with others can create a set of norms for shared values and behaviors (like James' desire to dress as male for his final year of high school).

A sixth factor related to an ecological understanding of resilience is *social justice* which results from experiences of being perceived as part of one's community, fair and equitable treatment by others (including service providers), the right of participation and opportunities to make a contribution. Much of James' success can be attributed to a school and home environment that promoted social justice values even if putting them into practice-created stress. James was the co-chair of his school's gay-straight alliance and made a point of involving himself in other school committees where he could effect change for children and youth struggling with gender dysphoria. Counselors can support social justice for transgendered youth by

helping them to learn to advocate for themselves (find their voice), or advocate on their behalf by building bridges to services and supports. This aspect of resilience is particularly important for youth dealing with gender dysphoria who might be refused timely medical and mental health services which could cause further gender dysphoria and expose young people like James to further abuse and stigmatization (WPATH, 2011). We know that the level of gender-related abuse is strongly associated with the degree of psychiatric distress during adolescence (Nuttbrock et al., 2010). As a counselor working with gender variant youth, integrating an understanding that withholding puberty suppressing and subsequent feminizing or masculinizing hormone therapy is not a neutral option for adolescents but a necessity if they are to explore all aspects of their identity.

A seventh and final factor that contributes to building resilience is a *sense of social cohesion*. This includes balancing one's personal interests with a sense of responsibility to the greater good or feeling as if one's life has meaning. It is often associated with spirituality or participation in organized religious activity and results typically in a sense of connection to community. For gender variant youth, threats to cohesion may result as they transition and social and institutional support for their decisions becomes complicated. To illustrate, well along in the clinical work, James announced that he had told his entire school about his transition at a school assembly. The counselor became anxious, scared for what kind of abuse or violence this might expose him to. Follow-up conversations were held with James' supports at his school to ensure James remained safe and connected in positive ways to his peers. James and his counselor also discussed what this disclosure meant to him. James said he wanted to take control of the information as well as make the path that he was going down easier for other students. He wanted to provide people wondering about their own gender an opportunity to see that someone else in their school was openly exploring. The significance of his disclosure, then, was that it made James' individual experience an overtly political act. Not only did it help him feel in control of the transition and how others see him, it was also his way of making his personal experience meaningful for others and changing perceptions of transgendered youth in his school and community.

A successful intervention does not have to address all seven factors at once. Engaging in a process that makes even one factor more accessible tends to influence access to the other six. In James' case, it would have put him at greater risk of harm to ignore or delay exploration of his gender dysphoria. At the same time, to focus exclusively on an assessment for hormone replacement or puberty suppressing therapy with James while ignoring contextual factors, would have missed not only the tremendous risks in his environment but also important opportunities for resilience. Fortunately, in this example, James is provided access to most of the seven factors that predict resilience through processes that are facilitated by different service providers, educators and his family. He is given the means to form positive relationships with caring adults, to exercise some control over his life by engaging in the decision about his gender, to gain a sense of safety with his family, create for himself a sense of belonging in his school and community, and find meaning as a leader among his peers who is standing up for the rights of transgendered youth.

Each of these experiences is part of a process that makes it possible for James to cope well in a very challenging context. As counselors, these resilience-promoting processes (interactions with the environment) are as important to focus on as individual interventions like assessment for hormone replacement therapy. Arguably, without facilitating engagement in protective processes that changed James' interactions with his environment, James' transition would have been fraught with even more psychological and social barriers.

Navigation and Negotiation Micro-Skills

Accessing the factors that build resilience requires counselors to play two roles: they must help clients both navigate to the resources they need while helping them negotiate for resources that are meaningful to them. Effective counselors use a broad set of skills to accomplish both tasks, ensuring they are positioned in ways that avoid the imposition of the counselor's worldview on youth who experience marginalization. A number of microskills are evident in the work of counselors who are working with the goal to build resilience. What follows is a brief description of several of these skills and how they were employed during work with James.

Navigation

A counselor explores which internal and external resources are realistically available and how youth can access these resources. Exploring the resources available includes discussing the barriers to change youth experience and how those barriers can be changed. Integral to understanding resources that are meaningful and relevant is developing an understanding of possible allies who can help a client access resources and put new ways of coping into practice. Establishing the client's level of motivation to implement new solutions is also critical to successful navigations.

The skills required to help young people navigate in challenging social ecologies are multidimensional. Below is a short list of some of the ways that James' therapist supported James with an intentionally resilience-focused practice. Individually oriented treatment goals were also achieved, such as exploring James' gender identity, but it was these more ecological interventions that ensured James had the confidence and supports he needed to continue to explore his gender.

The navigation microskills used during sessions with James included:

- Make resources available (The counselor helps the client identify the internal and external resources that are available). James and his counselor discussed the services and supports that the counselor was familiar with and how his role as a bridge builder could help make new resources available. While services related to James' transition were discussed at length, a resilience-focused understanding

of James' decision in a larger context meant that together he and his therapist also worked to identify the supports James required at home and at school to avoid stigma, feel emotionally stable, and develop a positive identity as a male.

- Explore barriers to change (The counselor discusses the barriers to change the client experiences, and which resources are most likely needed to address which barriers). While WPATH guidelines have moved to an informed consent model, the context that James was living in required further confirmation of a diagnosis of gender dysphoria and access to the one endocrinologist in his area who was trained and willing to prescribe hormone replacement therapy. James was very frustrated that he had to see yet another professional to discuss his gender identity and get access to the treatment he had a right to. He and his therapist discussed what the barriers were in the local mental and health service context, what James' options were if he wished to begin hormone replacement therapy in the near future, and how he wanted to proceed.
- Build bridges to new services and supports (The counselor discusses with the client the services and supports that the counselor is familiar with and her or his role as a bridge builder to help make new resources available and accessible). James agreed to a referral to a psychiatrist with the local youth mental health services that the counselor knew was informed about trans-related issues. This particular psychiatrist was also receptive to the documentation and diagnosis that the therapist and James had developed together, thus accelerating the work the psychiatrist would do with James. In this case, it was the counselor's efforts to build bridges to service that expedited James' access to medical resources.
- Ask what is meaningful (The counselor explores with the client which resources are the most meaningful given the client's context and culture). While participation in the gay-straight alliance at school was a meaningful activity for James, he was already connected there and did not identify the need for further peer supports. Instead, James was concerned about managing his anxiety and depression and asked his therapist to help him find ways to stay connected with his parents as he transitioned. Those were the resources that were meaningful for him and became the focus for most sessions.
- Find allies (The counselor explores possible allies who can help the client access resources and put new ways of coping into practice). It was quite simple to locate James' allies. Both his guidance counselor at his school and a community-based therapist who he had previously worked with were willing to engage with his new therapist and do whatever they could to provide complementary care. The therapist also discussed with James what role he could play in helping James' parents understand James' gender identity better. When the therapist met with them together as a family, James' parents had a number of questions and were generally afraid about what impact the transition would have on James' health and well-being physically, the stigma he would experience in the community, and the quality of his life after transitioning. Meeting with them provided a safe place for them to explore and ask questions without being judged.
- Explore the client's level of motivation (The counselor discusses with the client her/his/their level of motivation to implement new preferred solutions): WPATH

guidelines recommend that therapists assess readiness and prepare clients for hormone replacement therapy or surgery as needed. James' motivation was very high, unlike other youth who seem more frustrated at how slow the assessment process is when they are ready to transition.

- Advocate (The counselor advocates with, or on behalf of, the client, or shows the client how to advocate independently to make resources more available and accessible): Interactions between James and his therapist provided James time to discuss the resources he needed and to strategize ways to acquire these. This often put the therapist in the position of James' advocate, negotiating with other service providers and natural supports for what James needed to sustain himself through the transition.

Negotiation

The process of negotiation occurs concurrently with navigation, facilitating discussion of clients' thoughts and feelings about their problems, the contextual factors that support these problems and eliciting from clients' preferred solutions. Counselors then explore who has responsibility to change patterns of coping that are causing problems for the client, and/or for others in the client's life. Ensuring the client's voice is heard is central to the counselor–client process of negotiation (Brown, 1998; Ungar, 2004). A counselor may also, however, offer different descriptions of problems, and invite clients to comment on how well these new descriptions fit with the client's worldview (White, 2007). When negotiations are effective, the counselor and the client are able to explore ways of performing new patterns of coping that meet the client's needs and prevent resistance to intervention.

The following are some of the microskills evident in the work with James that are necessary to help clients negotiate effectively:

- Explore who has responsibility for making change happen (The counselor and client discuss who has responsibility to change patterns of coping that are causing problems for the client, and/or for others in the client's life). In James' case, his responsibility was to consider whether the process of transition would address his experience of gender dysphoria, but responsibility to create an environment where he could be gender variant and access services to make the transition rested with others such as his educators, parents, therapists, and medical doctors.
- Make the client's voice heard (The counselor helps the client's voice be heard when she/he/they name the people and resources necessary to make life better). The process of identifying resources and supports that are meaningful and culturally and contextually relevant necessarily requires that the volume of the client's voice be increased during counseling so that his or her understanding of the world is more privileged than it was before.
- Consider new names for old problems (When appropriate, the counselor may offer different names for a problem, and explore what these new descriptions mean for how the counselor and the client will work together). The new name is

intended to re-frame the problem as being less centered on the client. The problem is situated in the client's context incorporating an understanding of how different elements of the client's social ecology contribute to the problem. For example, with James, he became very comfortable with seeing himself as male. The "problem" was how would he and his counselor ensure he had access to the medical services he had a right to, keep his school safe, maintain his part-time job, and sustain the support of his family. The "problem" was not just gender dysphoria, even though that was the initial reason for the referral. Thinking ecologically, the problem was how would James live in a world that imposes simplistic binary notions of gender.

- Make the client feel valued (The client is given help to influence the way others see her/him/them. The client feels valued for her/his/their input). Knowing we have family and community supports is very important to the development of our overall sense of health and well-being (Abramson et al., 2010; Walsh, 2006). Knowing we have support for our gender identity and expression is also important. For James, this meant feeling valued by his mother in particular, and his family in general as he transitioned to male.
- Identify opportunities to perform new coping strategies (The counselor and the client identify times when the client will perform new way of coping and discuss who will notice the changes). As James was able to identify the issues and resources that had the most meaning for him in counseling, he began to disclose his male identity to more and more people. In instances like this, discussing disclosure plans with clients helps them to anticipate the supports they will need and plan for how they will disclose. Having told people close to him about his intent to transition, James had decided he had enough supports to risk telling larger numbers of people. James also performed his new identity as a male through the clothes he chose to wear and other artifacts of identity. There can be a number of complicating factors when gender variant youth make these very public performances. How will their school, peers, and workplace deal with the youth's changed identity? Will they be harassed or physically assaulted in their community, on public transportation, or in their own homes? Finding safe places for James to perform as male while transitioning was critical to his resilience.

Conclusion

When performed well, a resilience-informed practice broadens the scope of clinical work for therapists who are assisting youth with psychological and social challenges like gender dysphoria. Interventions focus attention on the social determinants of health that are contextually and culturally relevant. When this approach reflects an understanding of the protective factors that build resilience, treatment is likely to provide the kind of support clients like James report is helpful to their psychological and social development. Multiple skills, however, are required to make this kind of practice intentional. By working with clients to explore and develop

resources to navigate and negotiate, counselors decenter the focus from individual level factors and client responsibility for change, focusing instead on how to facilitate access to the factors that are associated with resilience among child, youth and family populations experiencing stress.

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